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NEWS 1	NOV 21	Web Page for STN Seminar Schedule - N. America
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NEWS 3	NOV 26	MARPAT enhanced with FSORT command
NEWS 4	NOV 26	CHEMSAFE now available on STN Easy
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NEWS 7	DEC 12	GBFULL now offers single source for full-text coverage of complete UK patent families
NEWS 8	DEC 17	Fifty-one pharmaceutical ingredients added to PS
NEWS 9	JAN 06	The retention policy for unread STNmail messages will change in 2009 for unread STNmail messages
NEWS 10	JAN 07	STN-Columbus and STN-Tokyo WPIDS, WPINDEX, and WPIX enhanced Japanese Patent Classification Data
NEWS 11	FEB 02	Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
NEWS 12	FEB 02	GENBANK enhanced with SET PLURALS and SET SPELLING
NEWS 13	FEB 06	Patent sequence location (PSL) data added to USGENE
NEWS 14	FEB 10	COMPENDEX reloaded and enhanced
NEWS 15	FEB 11	WTEXTILES reloaded and enhanced
NEWS 16	FEB 19	New patent-examiner citations in 300,000 CA/CAPLus patent records provide insights into related prior art
NEWS 17	FEB 19	Increase the precision of your patent queries -- use terms from the IPC Thesaurus, Version 2009.01
NEWS 18	FEB 23	Several formats for image display and print options discontinued in USPATFULL and USPAT2
NEWS 19	FEB 23	MEDLINE now offers more precise author group fields and 2009 MeSH terms
NEWS 20	FEB 23	TOX CENTER updates mirror those of MEDLINE - more precise author group fields and 2009 MeSH terms
NEWS 21	FEB 23	Three million new patent records blast AEROSPACE into STN patent clusters
NEWS 22	FEB 25	USGENE enhanced with patent family and legal status display data from INFADOCDB
NEWS EXPRESS	JUNE 27 08	CURRENT WINDOWS VERSION IS V8.3,

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
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Enter NEWS followed by the item number or name to see news on that specific topic.

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FILE 'HOME' ENTERED AT 11:36:23 ON 04 MAR 2009

=> FILE REG  
COST IN U.S. DOLLARS  
SINCE FILE  
ENTRY SESSION  
0.22 0.22  
FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 11:36:29 ON 04 MAR 2009  
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STRUCTURE FILE UPDATES: 2 MAR 2009 HIGHEST RN 1114593-79-1  
DICTIONARY FILE UPDATES: 2 MAR 2009 HIGHEST RN 1114593-79-1

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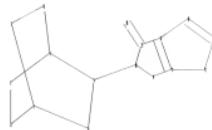
TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stnagen/stndoc/properties.html>

=> Uploading C:\Program Files\Stnexp\Queries\10599839.str



chain nodes :

15

ring nodes :

1 2 3 4 5 6 7 8 10 11 12 13 14 16 17 18

chain bonds :

5-10 11-15

ring bonds :

1-2 1-6 1-7 2-3 3-4 4-5 4-8 5-6 7-8 10-11 10-14 11-12 12-13 12-16  
13-14 13-18 16-17 17-18

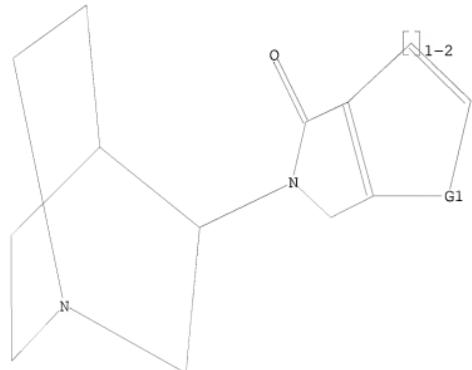
exact/norm bonds :  
1-2 1-6 1-7 2-3 3-4 4-5 4-8 5-6 5-10 7-8 10-11 10-14 11-12 11-15  
12-13 12-16 13-14 13-18 16-17 17-18  
isolated ring systems :  
containing 1 : 10 :

G1:C,O,S,N

Match level :  
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 10:Atom 11:Atom  
12:Atom 13:Atom 14:Atom 15:CLASS 16:Atom 17:Atom 18:Atom

L1 STRUCTURE UPLOADED

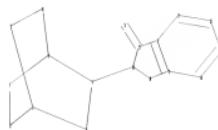
=> D L1  
L1 HAS NO ANSWERS  
L1 STR



G1 C,O,S,N

Structure attributes must be viewed using STN Express query preparation.

=>  
Uploading C:\Program Files\Stnexp\Queries\10599839A.str



chain nodes :

15

ring nodes :

1 2 3 4 5 6 7 8 10 11 12 13 14 17 18 19 20

chain bonds :

5-10 11-15

ring bonds :

1-2 1-6 1-7 2-3 3-4 4-5 4-8 5-6 7-8 10-11 10-14 11-12 12-13 12-17  
13-14 13-20 17-18 18-19 19-20

exact/norm bonds :  
1-2 1-6 1-7 2-3 3-4 4-5 4-8 5-6 5-10 7-8 10-11 10-14 11-12 11-15  
12-13 12-17 13-14 13-20 17-18 18-19 19-20  
isolated ring systems :  
containing 1 : 10 :

G1:C,O,S,N

G2:C,N

Match level :

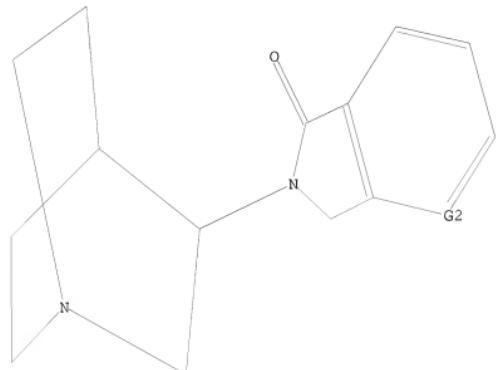
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 10:Atom 11:Atom  
12:Atom 13:Atom 14:Atom 15:CLASS 17:Atom 18:Atom 19:Atom 20:Atom

L2 STRUCTURE UPLOADED

=> D L2

L2 HAS NO ANSWERS

L2 STR



G1 C,O,S,N

G2 C,N

Structure attributes must be viewed using STN Express query preparation.

=> S L1 FULL  
FULL SEARCH INITIATED 11:37:21 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 863 TO ITERATE

100.0% PROCESSED 863 ITERATIONS  
SEARCH TIME: 00.00.01

83 ANSWERS

L3 83 SEA SSS FUL L1

=> S L2 FULL  
FULL SEARCH INITIATED 11:37:26 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 668 TO ITERATE

100.0% PROCESSED 668 ITERATIONS 79 ANSWERS  
SEARCH TIME: 00.00.01

L4 79 SEA SSS FUL L2

=> FILE CAPLUS  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
FULL ESTIMATED COST ENTRY SESSION  
371.76 371.98

FILE 'CAPLUS' ENTERED AT 11:37:30 ON 04 MAR 2009  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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FILE COVERS 1907 - 4 Mar 2009 VOL 150 ISS 10  
FILE LAST UPDATED: 3 Mar 2009 (20090303/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L3 FULL  
L5 9 L3

=> S L4 FULL  
L6 9 L4

=> D IBIB ABS HITSTR L5 TOT

TITLE: Preparation of N,N'-diarylpurimidinediamine for use as protein kinase inhibitors

INVENTOR(S): Michellys, Pierre-Yves; Pei, Wei; Marsilje, Thomas H.; Lu, Wenshuo; Chen, Bei; Uno, Tetsuo; Jin, Yunho; Jiang, Tao

PATENT ASSIGNEE(S): IRM LLC, Bermuda  
SOURCE: PCT Int. Appl., 199pp.

DOCUMENT TYPE: Patent  
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008073687	A2	20080619	WO 2007-US85304	20071120
WO 2008073687	A3	20080731		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
US 20080176881	A1	20080724	US 2007-943436	20071120
PRIORITY APPLN. INFO.:			US 2006-869299P	P 20061208
			US 2007-966449P	P 20070828

OTHER SOURCE(S): MARPAT 149:79629

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [R1 and R2 independently = halo, OR12, (un)substituted alkyl, alkenyl, etc.; or one of R1 or R2 = H; or R1 and R2 together form (un)substituted monocyclic or fused carbocyclic ring, aryl, heteroaryl, etc.; R3 = CN, S02R12, (CR5)2CO2R12, etc.; R4 = H, NO2, halo, (un)substituted alkyl, alkenyl, etc.; R5 = H or alkyl; R6 = substituted aryl or heteroaryl; R12 = H, alkyl, aryl, etc.], and their pharmaceutically acceptable salts, are prepared and disclosed as protein kinase inhibitors. Thus, e.g., II was prepared by amidation of 4-aminopiperidine-1-carboxylic acid tert-Bu ester with 2-chloro-4-isopropoxy-5-nitrobenzoyl chloride (preparation given), followed by coupling with vinylboronic acid di-Bu ester, cyclization, reduction, substitution with (2,5-dichloropyrimidin-4-yl)-[2-(propane-2-sulfonyl)phenyl]amine (preparation given), and deprotection. I were evaluated in BaF3-NPM-ALK cell assays and, in general, demonstrated IC50 values from 1 nM to 10  $\mu$ M.

IT 1032902-05-8P

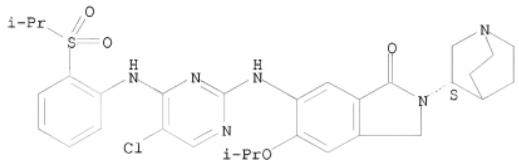
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N,N'-diarylpyrimidinediamine for use as protein kinase inhibitors)

RN 1032902-05-8 CAPLUS

CN 1H-Isoindol-1-one, 2-(3S)-1-azabicyclo[2.2.2]oct-3-yl-6-[(5-chloro-4-[(2-[(1-methylethyl)sulfonyl]phenyl)amino]-2-pyrimidinyl)amino]-2,3-dihydro-5-(1-methylethoxy)- (CA INDEX NAME)

## Absolute stereochemistry.



LS ANSWER 2 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2008:224063 CAPLUS  
 DOCUMENT NUMBER: 148:285190  
 TITLE: Tricyclic compound derivatives useful in the treatment  
 of neoplastic diseases, inflammatory disorders and  
 immunomodulatory disorders  
 INVENTOR(S): Gregor, Vlad Edward; Liu, Yahua; Anikin, Alexey;  
 McGee, Danny Peter Claude; Mikel, Charles; McGrath,  
 Douglas Eric; Vavilala, Goverdhan Reddy; Pickens,  
 Jason C.; Kadushkin, Alexander; Thiruvazhi, Mohan  
 Santhanam; Zozulya, Sergey; Vairagoundar, Rajendran;  
 Zhu, Tong; Chucholowski, Alexander; Webb, Thomas R.;  
 Jiang, Luyong; Gantla, VidyaSagar Reddy; Yan, Zheng  
 PATENT ASSIGNEE(S): Cambridge Research Laboratories, Inc., USA  
 SOURCE: PCT Int. Appl., 339pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008021369	A2	20080221	WO 2007-US18002	20070813
WO 2008021369	A3	20080529		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
US 20080171769	A1	20080717	US 2007-891604	20070810
PRIORITY APPLN. INFO.:			US 2006-837652P	P 20060814
OTHER SOURCE(S):	MARPAT	148:285190		
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Provided are compds. of formula I or a stereoisomer, tautomer, salt, hydrate, or prodrug thereof, capable of modulating tyrosine kinases, compns. comprising the compds. and methods of their use. Compds. of formula I wherein each W1 - W6 are independently C and N, with the proviso that then W1 - W6 is N, the corresponding substituent X1 - X6 is absent; each X1 - X3, X5 and X6 are independently H, OH, halo, (un)substituted lower alkyl, (un)substituted lower alkoxy, (un)substituted acylamino, etc.; X4 is H, OH, halo, CF<sub>3</sub>, OCF<sub>3</sub>, (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl, etc.; Y1 and Y2 are independently (un)substituted (CH<sub>2</sub>)<sub>0-4</sub> alkyl, CO, CS, C=NH, and derivs., SO<sub>2</sub> and CF<sub>2</sub>; R1 is (un)substituted heterocyclyl, heterocyclalkyl, heteroaryl, heteroarylalkyl, etc.; and their stereoisomers, tautomers, salts, hydrated and prodrugs thereof, are claimed. Example compound II was prepared by a multistep procedure (procedure given). All the invention compds. were evaluated for their tyrosine kinase modulatory activity (data given).

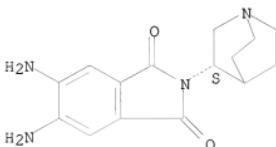
IT 1008453-60-8P 1008453-64-2P  
RL: PRPH (Prophetic); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prophetic intermediate; preparation of tricyclic compound derivs. as tyrosine

kinase modulators useful in treatment and prevention of neoplastic, inflammatory, immune and other tyrosine kinase-related diseases)

RN 1008453-60-8 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5,6-diamino-2-(3S)-1-azabicyclo[2.2.2]oct-3-yl-  
(CA INDEX NAME)

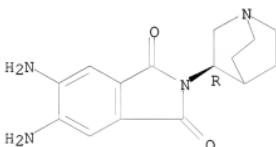
Absolute stereochemistry.



RN 1008453-64-2 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5,6-diamino-2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-  
(CA INDEX NAME)

Absolute stereochemistry.



IT 1008452-35-4 1008452-37-6

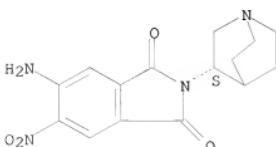
RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; preparation of tricyclic compound derivs. as tyrosine kinase modulators useful in treatment and prevention of neoplastic, inflammatory, immune and other tyrosine kinase-related diseases)

RN 1008452-35-4 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-amino-2-(3S)-1-azabicyclo[2.2.2]oct-3-yl-6-nitro-  
(CA INDEX NAME)

Absolute stereochemistry.

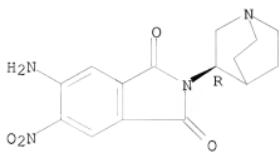


RN 1008452-37-6 CAPLUS

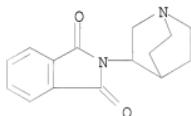
CN 1H-Isoindole-1,3(2H)-dione, 5-amino-2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-

nitro- (CA INDEX NAME)

Absolute stereochemistry.



LS ANSWER 3 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2005:1262924 CAPLUS  
DOCUMENT NUMBER: 144:369594  
TITLE: Synthesis, structural and conformational study of selected N-substituted phthalimides  
AUTHOR(S): Iriepa, Isabel; Villasante, F. Javier; Galvez, Enrique; Herrera, Antonio; Sanchez, Angel; Cano, Felix H.  
CORPORATE SOURCE: Dpto. Quimica Organica, Universidad de Alcala, Alcala de Henares, 28871, Spain  
SOURCE: Central European Journal of Chemistry (2005), 3(4), 683-704  
CODEN: CEJCAZ; ISSN: 1644-3624  
URL: <http://www.ingentaconnect.com/content/cesj/cejc/2005/00000003/00000004>  
PUBLISHER: Central European Science Journals  
DOCUMENT TYPE: Journal; (online computer file)  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 144:369594  
AB This paper synthesizes N-substituted phthalimides derived from nitrogen heterocycles as potential 5-HT4 ligands by using the Mitsunobu reaction. Conformational studies of some of the new compds. have been conducted using 1H and 13C-NMR spectroscopy. Proton and carbon resonances were achieved through the application of one-dimensional selective NOE, two-dimensional NMR techniques-homonuclear COSY-45, NOESY and heteronuclear 1H-13C HMQC correlated spectroscopy- and double resonance expts. The crystal structure of compound 1 was determined by X-ray diffraction.  
IT 882430-91-3P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis, crystal structure, and conformation of N-substituted phthalimides)  
RN 882430-91-3 CAPLUS  
CN 1H-Isoindole-1,3(2H)-dione, 2-(1-azabicyclo[2.2.2]oct-3-yl)- (CA INDEX NAME)



REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

LS ANSWER 4 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1154550 CAPLUS

DOCUMENT NUMBER: 143:422508

TITLE:

Preparation of

2-(1-azabicyclo[2.2.2]oct-3-yl)-2,3-dihydroisoindol-1-one and 5-(1-azabicyclo[2.2.2]oct-3-yl)-5,6-dihydro-furo[2,3-c]pyrrol-4-one derivatives for therapeutic use as ligands for the  $\alpha 7$  nicotinic acetylcholine receptor ( $\alpha 7$ nAChR)

INVENTOR(S): Chapdelaine, Marc; Herzog, Keith J.

PATENT ASSIGNEE(S): AstraZeneca AB, Swed.; Chapdelaine, Marc; Herzog, Keith J.

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2

Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

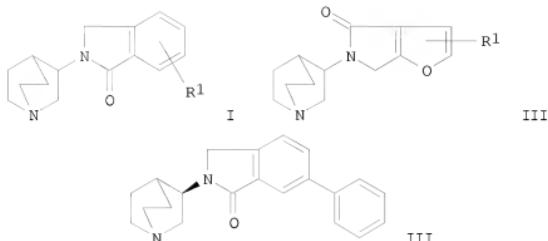
PATENT INFORMATION:

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AU 2005233492	A1	20051027	AU 2005-233492	20050406
CA 2563010	A1	20051027	CA 2005-2563010	20050406
EP 1737854	A1	20070103	EP 2005-722314	20050406
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CN 1968951	A	20070523	CN 2005-80019493	20050406
BR 2005009777	A	20071023	BR 2005-9777	20050406
JP 2007532637	T	20071115	JP 2007-508300	20050406
IN 2006DN05559	A	20070831	IN 2006-DN5559	20060925
MX 2006011725	A	20061211	MX 2006-11725	20061010
US 20070213342	A1	20070913	US 2006-599839	20061011
KR 2007020445	A	20070221	KR 2006-721260	20061013
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PRIORITY APPLN. INFO.:		SE 2004-970	A	20040414
		WO 2005-SE500	W	20050406

OTHER SOURCE(S):

CASREACT 143:422508, MARPAT 143:422508

GI



**AB** The title quinuclidine derivs., such as I and II [R1 = H, halogen, aryl, heteroaryl, heterocycl], were prepared for use in pharmaceutical compns. as  $\alpha 7$ nAChR ligands for treatment or prophylaxis of diseases or conditions in which activation of the  $\alpha 7$ nAChR is beneficial. These quinuclidines are claimed for use in the treatment or prophylaxis of neurol. disorders, psychotic disorders or intellectual impairment disorders selected from Alzheimer's disease, learning deficit, cognition deficit, attention deficit, memory loss or attention deficit hyperactivity disorder, anxiety, schizophrenia, or mania, manic depression, Parkinson's disease, Huntington's disease, Tourette's syndrome, neurodegenerative disorders in which there is loss of cholinergic synapses, jet lag, nicotine addiction, craving, pain, or ulcerative colitis. Thus, 2-[(R)-1-azabicyclo[2.2.2]oct-3-yl]-6-phenyl-2,3-dihydroisoindol-1-one (III) was prepared via an aromatic coupling reaction with 34% yield of 2-[(R)-1-azabicyclo[2.2.2]oct-3-yl]-6-bromo-2,3-dihydroisoindol-1-one with Ph<sub>3</sub>(OH)<sub>2</sub> using PdCl<sub>2</sub>(PPh<sub>3</sub>)<sub>2</sub> and Cs<sub>2</sub>CO<sub>3</sub> in DME/H<sub>2</sub>O/BtOH (1:1:1) and heating to 150° for 10 min in a Smith microwave. The prepared quinuclidine derivs. were assayed for  $\alpha 7$ nAChR binding affinity and for P-glycoprotein mediated efflux.

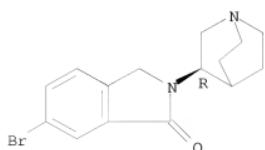
**IT** 868235-52-3P, 2-[(R)-1-Azabicyclo[2.2.2]oct-3-yl]-6-bromo-2,3-dihydroisoindol-1-one 868235-55-6P 868235-59-0P  
868235-63-6P 868235-69-2P

**RL:** PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of 2-quinuclidinyl-2,3-dihydroisoindol-1-ones and 5-quinuclidinyl-5,6-dihydro-furo[2,3-c]pyrrol-4-one derivs. for therapeutic use as ligands for  $\alpha 7$  nicotinic acetylcholine receptor)

**RN** 868235-52-3 CAPLUS

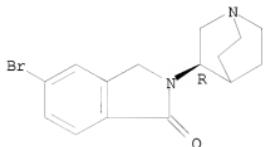
**CN** 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-bromo-2,3-dihydro-(CA INDEX NAME)

Absolute stereochemistry.



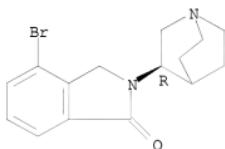
RN 868235-55-6 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-5-bromo-2,3-dihydro-  
(CA INDEX NAME)

Absolute stereochemistry.



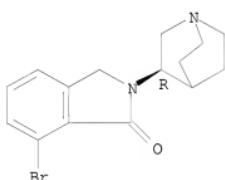
RN 868235-59-0 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-4-bromo-2,3-dihydro-  
(CA INDEX NAME)

Absolute stereochemistry.



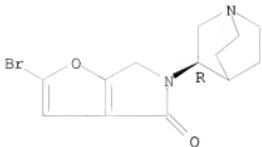
RN 868235-63-6 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-7-bromo-2,3-dihydro-  
(CA INDEX NAME)

Absolute stereochemistry.



RN 868235-69-2 CAPLUS  
CN 4H-Furo[2,3-c]pyrrol-4-one, 5-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2-bromo-5,6-dihydro-  
(CA INDEX NAME)

Absolute stereochemistry.



IT 868235-47-6P, 2-[(R)-1-Azabicyclo[2.2.2]oct-3-yl]-6-phenyl-2,3-dihydroisoindol-1-one 868235-48-7P 868235-49-8P  
 868235-50-1P 868235-51-2P 868235-53-4P  
 868235-54-5P 868235-56-7P 868235-57-8P  
 868235-58-9P 868235-60-3P 868235-61-4P  
 868235-62-5P 868235-64-7P 868235-65-8P  
 868235-66-9P 868235-67-0P 868235-68-1P  
 868235-70-5P 868235-71-6P 868235-72-7P  
 868235-73-8P 868235-74-9P 868235-75-0P  
 868235-76-1P 868235-77-2P 868235-78-3P  
 868235-79-4P 868235-80-7P 868235-81-8P  
 868235-82-9P 868235-83-0P 868235-84-1P  
 868235-85-2P 868235-86-3P 868235-87-4P  
 868235-88-5P 868235-89-6P 868235-90-9P  
 868235-91-0P 868235-92-1P 868235-93-2P  
 868235-94-3P 868235-95-4P 868235-96-5P  
 868235-97-6P 868235-98-7P 868235-99-8P  
 868236-00-4P 868236-02-6P 868236-04-8P  
 868236-06-0P 868236-07-1P 868236-08-2P  
 868236-09-3P 868236-10-6P 868236-11-7P  
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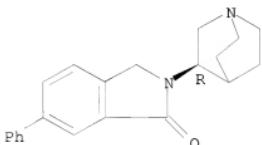
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 2-quinuclidinyl-2,3-dihydroisoindol-1-ones and 5-quinuclidinyl-5,6-dihydro-furo[2,3-c]pyrrol-4-one derivs. for therapeutic use as ligands for  $\alpha_7$  nicotinic acetylcholine receptor)

RN 868235-47-6 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-phenyl- (CA INDEX NAME)

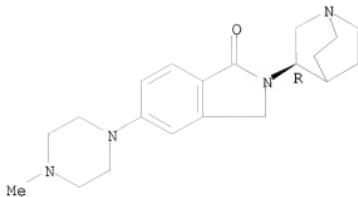
Absolute stereochemistry.



RN 868235-48-7 CAPLUS

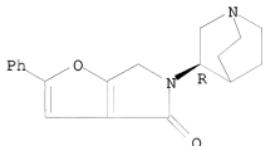
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-5-(4-methyl-1-piperazinyl)- (CA INDEX NAME)

Absolute stereochemistry.



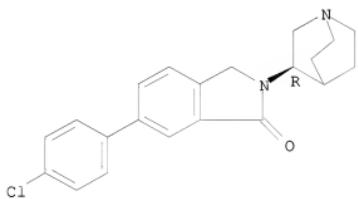
RN 868235-49-8 CAPLUS  
 CN 4H-Furo[2,3-c]pyrrol-4-one, 5-(3R)-1-azabicyclo[2.2.2]oct-3-yl-5,6-dihydro-  
 2-phenyl- (CA INDEX NAME)

Absolute stereochemistry.



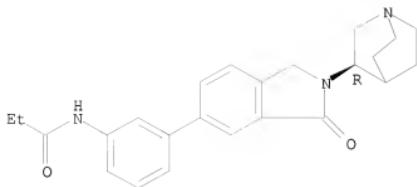
RN 868235-50-1 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-(4-chlorophenyl)-  
 2,3-dihydro- (CA INDEX NAME)

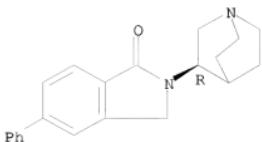
Absolute stereochemistry.



RN 868235-51-2 CAPLUS  
 CN Propanamide, N-[3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-  
 isoindol-5-yl]phenyl]- (CA INDEX NAME)

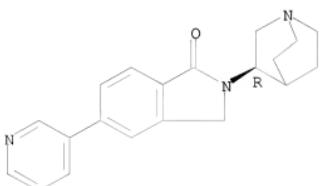
Absolute stereochemistry.





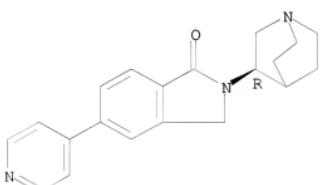
RN 868235-57-8 CAPLUS  
CN 1H-Isindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-5-(3-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



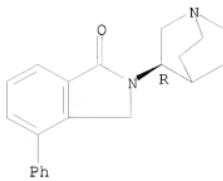
RN 868235-58-9 CAPLUS  
CN 1H-Isindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-5-(4-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



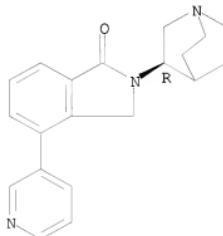
RN 868235-60-3 CAPLUS  
CN 1H-Isindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-4-phenyl- (CA INDEX NAME)

Absolute stereochemistry.



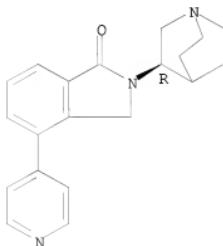
RN 868235-61-4 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-4-(3-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



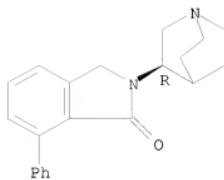
RN 868235-62-5 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-4-(4-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



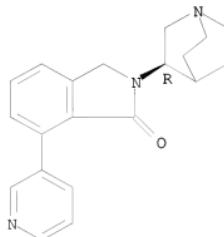
RN 868235-64-7 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-7-phenyl- (CA INDEX NAME)

Absolute stereochemistry.



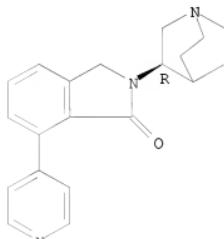
RN 868235-65-8 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-7-(3-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



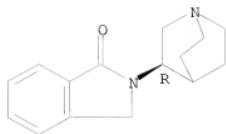
RN 868235-66-9 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-7-(4-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



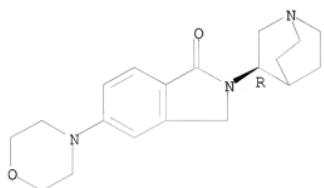
RN 868235-67-0 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



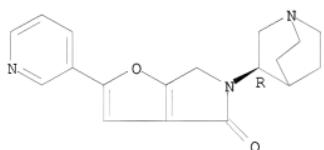
RN 868235-68-1 CAPLUS  
 CN 1H-Isindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-5-(4-morpholinyl)- (CA INDEX NAME)

Absolute stereochemistry.



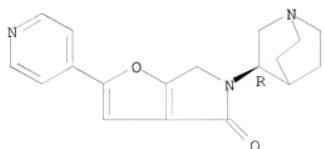
RN 868235-70-5 CAPLUS  
 CN 4H-Furo[2,3-c]pyrrol-4-one, 5-(3R)-1-azabicyclo[2.2.2]oct-3-yl-5,6-dihydro-2-(3-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



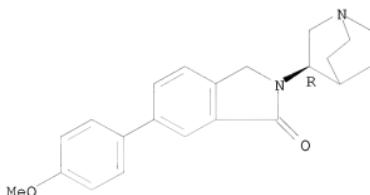
RN 868235-71-6 CAPLUS  
 CN 4H-Furo[2,3-c]pyrrol-4-one, 5-(3R)-1-azabicyclo[2.2.2]oct-3-yl-5,6-dihydro-2-(4-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



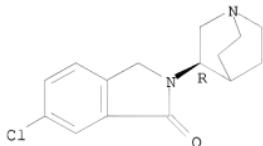
RN 868235-72-7 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(4-methoxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



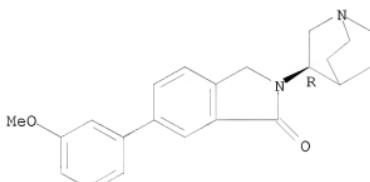
RN 868235-73-8 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-chloro-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



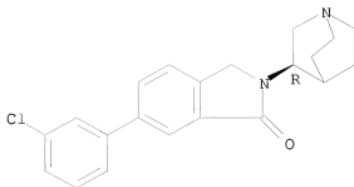
RN 868235-74-9 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(3-methoxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



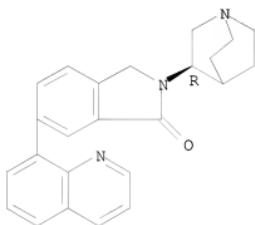
RN 868235-75-0 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-(3-chlorophenyl)-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



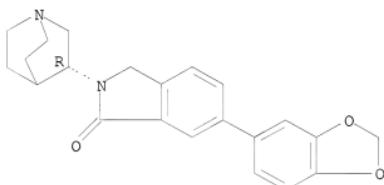
RN 868235-76-1 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(8-quinolinyl)- (CA INDEX NAME)

Absolute stereochemistry.



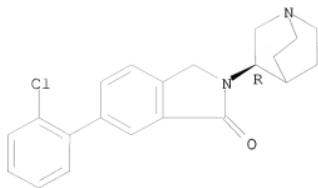
RN 868235-77-2 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-(1,3-benzodioxol-5-yl)-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



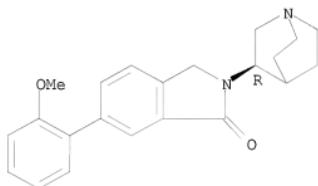
RN 868235-78-3 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-(2-chlorophenyl)-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



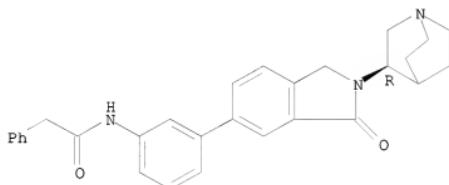
RN 868235-79-4 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(2-methoxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



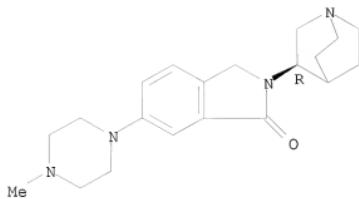
RN 868235-80-7 CAPLUS  
CN Benzeneacetamide, N-[3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isoindol-5-yl]phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



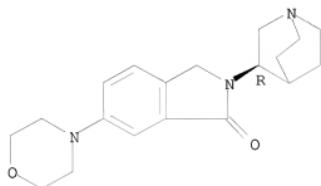
RN 868235-81-8 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(4-methyl-1-piperazinyl)- (CA INDEX NAME)

Absolute stereochemistry.



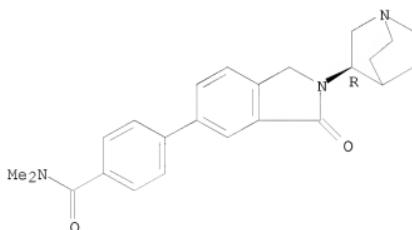
RN 868235-82-9 CAPLUS  
 CN 1H-Isindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(4-methylpiperidin-1-yl)- (CA INDEX NAME)

Absolute stereochemistry.



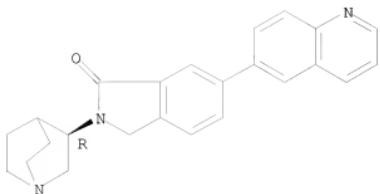
RN 868235-83-0 CAPLUS  
 CN Benzanide, 4-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isindol-5-yl]-N,N-dimethyl- (CA INDEX NAME)

Absolute stereochemistry.



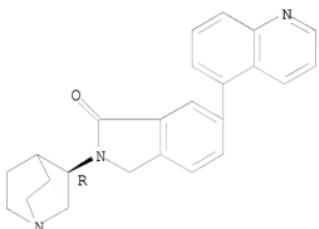
RN 868235-84-1 CAPLUS  
 CN 1H-Isindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(6-quinolinyl)- (CA INDEX NAME)

Absolute stereochemistry.



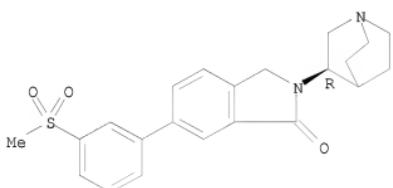
RN 868235-85-2 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(5-quinolinyl)- (CA INDEX NAME)

Absolute stereochemistry.



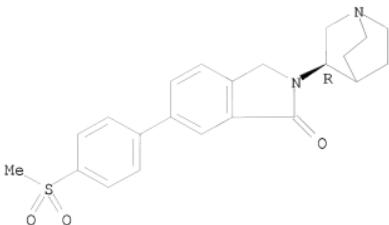
RN 868235-86-3 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[3-(methylsulfonyl)phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



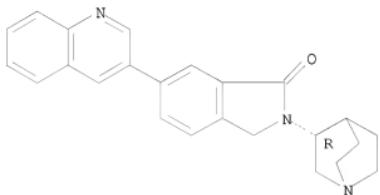
RN 868235-87-4 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[4-(methylsulfonyl)phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



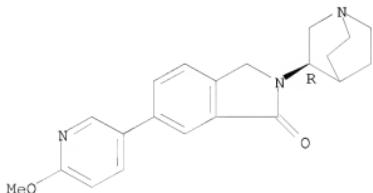
RN 868235-88-5 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(3-quinolinyl)- (CA INDEX NAME)

Absolute stereochemistry.



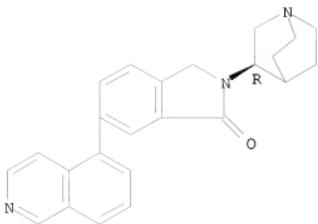
RN 868235-89-6 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(6-methoxy-3-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



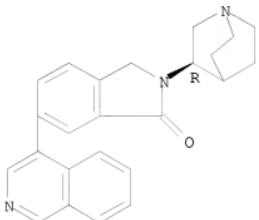
RN 868235-90-9 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(5-isoquinoliny)- (CA INDEX NAME)

Absolute stereochemistry.



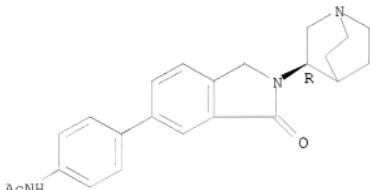
RN 868235-91-0 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(4-isoquinolinyl)- (CA INDEX NAME)

Absolute stereochemistry.



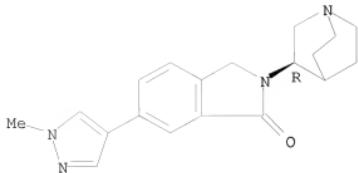
RN 868235-92-1 CAPLUS  
 CN Acetamide, N-[4-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isoindol-5-yl]phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



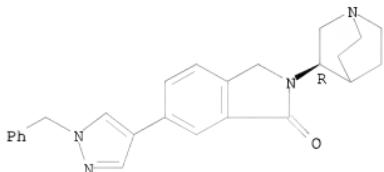
RN 868235-93-2 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(1-methyl-1H-pyrazol-4-yl)- (CA INDEX NAME)

Absolute stereochemistry.



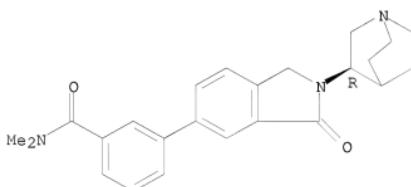
RN 868235-94-3 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(1-phenylmethyl)-1H-pyrazol-4-yl- (CA INDEX NAME)

Absolute stereochemistry.



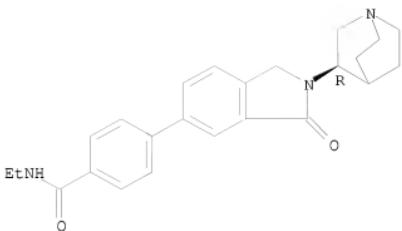
RN 868235-95-4 CAPLUS  
 CN Benzamide, 3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isoindol-5-yl]-N,N-dimethyl- (CA INDEX NAME)

Absolute stereochemistry.



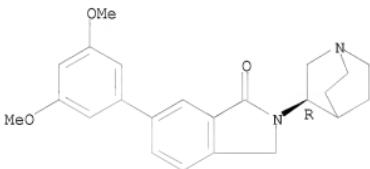
RN 868235-96-5 CAPLUS  
 CN Benzamide, 4-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isoindol-5-yl]-N-ethyl- (CA INDEX NAME)

Absolute stereochemistry.



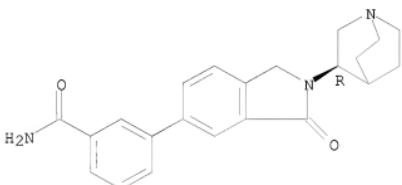
RN 868235-97-6 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-(3,5-dimethoxyphenyl)-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



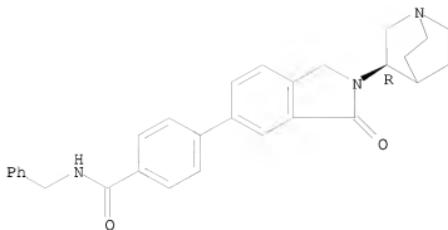
RN 868235-98-7 CAPLUS  
 CN Benzanide, 3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isoindol-5-yl]- (CA INDEX NAME)

Absolute stereochemistry.



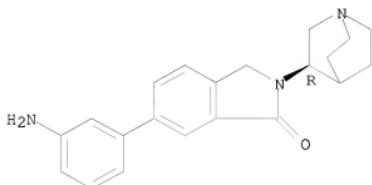
RN 868235-99-8 CAPLUS  
 CN Benzanide, 4-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isoindol-5-yl]-N-(phenylmethyl)- (CA INDEX NAME)

Absolute stereochemistry.



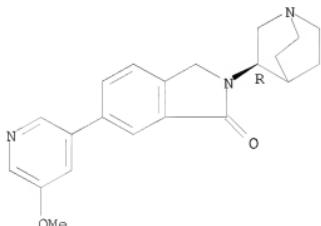
RN 868236-00-4 CAPLUS  
 CN 1H-Isoindol-1-one, 6-(3-aminophenyl)-2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



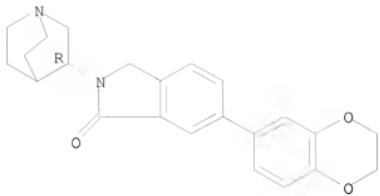
RN 868236-02-6 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(5-methoxy-3-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



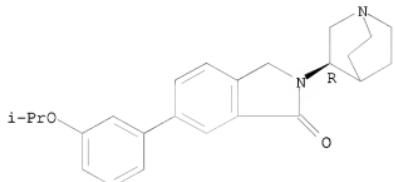
RN 868236-04-8 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-(2,3-dihydro-1,4-benzodioxin-6-yl)-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



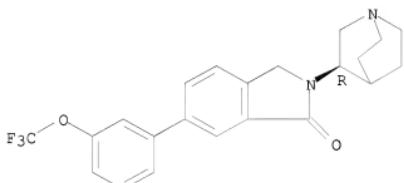
RN 868236-06-0 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[3-(1-methylethoxy)phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



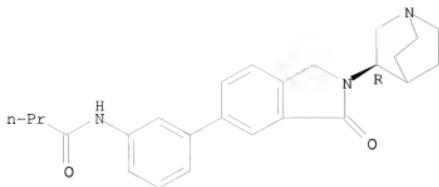
RN 868236-07-1 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[3-(trifluoromethoxy)phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 868236-08-2 CAPLUS  
 CN Butanamide, N-[3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isindol-5-yl]phenyl]- (CA INDEX NAME)

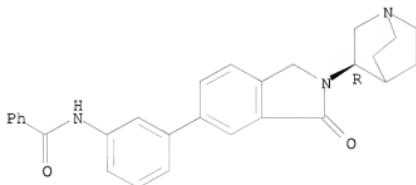
Absolute stereochemistry.



RN 868236-09-3 CAPLUS

CN Benzanide, N-[3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl]-2,3-dihydro-3-oxo-1H-isoindol-5-yl]phenyl]- (CA INDEX NAME)

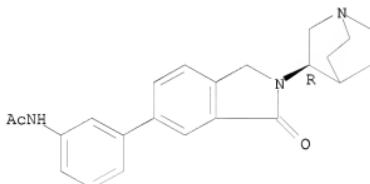
Absolute stereochemistry.



RN 868236-10-6 CAPLUS

CN Acetanide, N-[3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl]-2,3-dihydro-3-oxo-1H-isoindol-5-yl]phenyl]- (CA INDEX NAME)

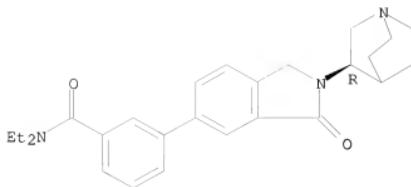
Absolute stereochemistry.



RN 868236-11-7 CAPLUS

CN Benzanide, 3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl]-2,3-dihydro-3-oxo-1H-isoindol-5-yl]-N,N-diethyl- (CA INDEX NAME)

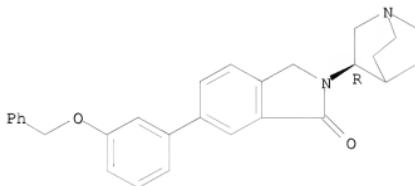
Absolute stereochemistry.



RN 868236-12-8 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[(3-phenylmethoxy)phenyl]- (CA INDEX NAME)

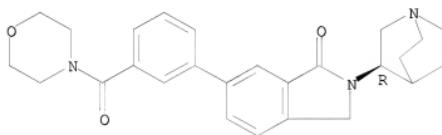
Absolute stereochemistry.



RN 868236-13-9 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[(3-(4-morpholinylcarbonyl)phenyl)- (CA INDEX NAME)

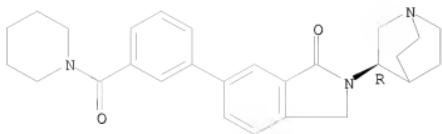
Absolute stereochemistry.



RN 868236-14-0 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[(3-(1-piperidinylcarbonyl)phenyl)- (CA INDEX NAME)

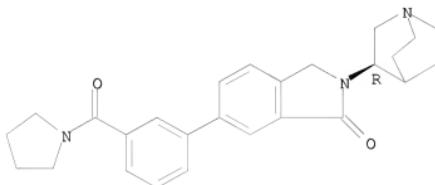
Absolute stereochemistry.



RN 868236-15-1 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[3-(1-pyrrolidinylcarbonyl)phenyl]- (CA INDEX NAME)

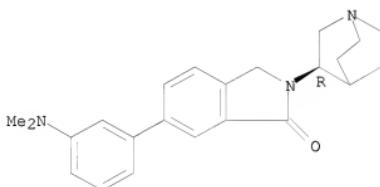
Absolute stereochemistry.



RN 868236-16-2 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-[3-(dimethylamino)phenyl]-2,3-dihydro- (CA INDEX NAME)

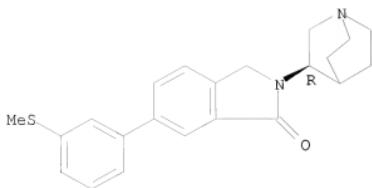
Absolute stereochemistry.



RN 868236-17-3 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[3-(methylthio)phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

9

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

LS ANSWER 5 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:89070 CAPLUS

DOCUMENT NUMBER: 136:395318

TITLE: Novel Potent 5-HT3 Receptor Ligands Based on the Pyrrolidone Structure: Synthesis, Biological Evaluation, and Computational Rationalization of the Ligand-Receptor Interaction Modalities

AUTHOR(S): Cappelli, Andrea; Anzini, Maurizio; Vomero, Salvatore; Mennuni, Laura; Makovec, Francesco; Doucet, Edith; Hamon, Michel; Menziani, M. Cristina; De Benedetti, Pier G.; Giorgi, Gianluca; Ghelardini, Carla; Collina, Simona

CORPORATE SOURCE: Dipartimento Farmaco Chimico Tecnologico, Universita di Siena, Siena, 53100, Italy

SOURCE: Bioorganic & Medicinal Chemistry (2002), 10(3), 779-801

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:395318

AB Novel conformationally constrained derivs. of classical 5-HT3 receptor antagonists were designed and synthesized with the aim of probing the central 5-HT3 receptor recognition site in a systematic way. The newly-synthesized compds. were tested for their potential ability to inhibit [<sup>3</sup>H]gransetron specific binding to 5-HT3 receptor in rat cortical membranes. These studies revealed subnanomolar affinity in some of the compds. under study. The most potent ligand in this series was the quinuclidine derivative, which showed an affinity comparable with that of the reference ligand granisetron. The potential 5-HT3 agonist/antagonist activity of some selected compds. was assessed *in vitro* on the 5-HT3 receptor-dependent [<sup>14</sup>C]guanidinium uptake in NG 108-15 cells. Both of the tropane derivs. tested in this functional assay showed antagonist properties, while the quinuclidine derivs. studied showed a full range of intrinsic efficacies. Therefore, the functional behavior of these 5-HT3 receptor ligands appears to be affected by the structural features of both the azabicyclo moiety and the heteroarom. portion. In agreement with the data obtained on NG 108-15 cells, investigations on the 5-HT3 receptor-dependent Bezold-Jarisch reflex in urethane-anesthetized rats confirmed the 5-HT3 receptor antagonist properties of several of the compds. Finally, several prevented scopolamine-induced amnesia in the mouse passive avoidance test suggestive of a potential usefulness in cognitive disorders for these compds. Qual. and quant. structure-affinity relation studies were carried out by theor. descriptors derived on a single structure and ad-hoc defined size and shape descriptors (indirect approach). The results showed to be useful in capturing information relevant to ligand-receptor interaction. Addnl. information derived by the anal. of the energy minimized 3-D structures of the ligand-receptor complexes (direct approach) suggested interesting mechanistic and methodol. considerations on the binding mode multiplicity at the 5-HT3 receptors and on the degree of tolerance allowed in the alignment of mols. for the indirect approach, resp.

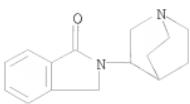
IT 431079-01-5P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(novel potent 5-HT3 receptor ligands based on pyrrolidone structure in relation to synthesis and biol. evaluation and computational rationalization of ligand-receptor interaction modalities)

RN 431079-01-5 CAPLUS

CN 1H-Isoindol-1-one, 2-(1-azabicyclo[2.2.2]oct-3-yl)-2,3-dihydro-, hydrochloride (1:1) (CA INDEX NAME)



● HCl

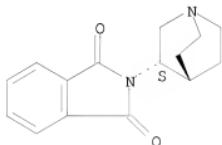
REFERENCE COUNT:

54

THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

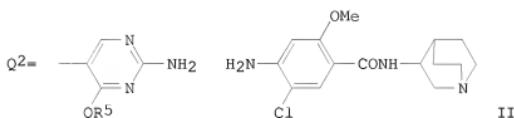
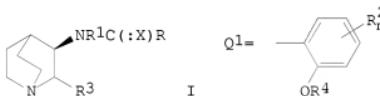
L5 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1992:511443 CAPLUS  
DOCUMENT NUMBER: 117:111443  
ORIGINAL REFERENCE NO.: 117:19443a,19446a  
TITLE: Synthesis of (R)- and (S)-3-aminoquinuclidine from  
3-quinuclidinone and (S)- and (R)-1-phenethylamine  
AUTHOR(S): Langlois, Michel; Meyer, Christine; Soulier, Jean  
Louis  
CORPORATE SOURCE: CERCOA, CNRS, Thiais, F-94320, Fr.  
SOURCE: Synthetic Communications (1992), 22(13), 1895-911  
CODEN: SYNCAC; ISSN: 0039-7911  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 117:111443  
AB The synthesis of (R)- and (S)-3-aminoquinuclidine, an important building  
block for the synthesis of chiral 5-HT3 serotonin receptor antagonists, is  
described. The key reaction is the reduction by NaBH4 of the imine prepared  
from the 3-quinuclidinone and chiral (S) or (R)-1-phenethylamine.  
IT 142999-65-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and deprotection of)  
RN 142999-65-3 CAPLUS  
CN 1H-Isoindole-1,3(2H)-dione, 2-(1-azabicyclo[2.2.2]oct-3-yl)-, (S)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



LS ANSWER 7 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1990:571886 CAPLUS  
 DOCUMENT NUMBER: 113:171886  
 ORIGINAL REFERENCE NO.: 113:29153a,29156a  
 TITLE: Preparation of N-(3-quinuclidinyl)benzamides and  
 analogs as psychoanaleptic agents  
 INVENTOR(S): Renaud, Alain; Langlois, Michel; Naylor, Robert John;  
 Naylor, Brenda  
 PATENT ASSIGNEE(S): Delalande S. A., Fr.; A. H. Robins Co., Inc.  
 SOURCE: Eur. Pat. Appl., 29 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 353371	A1	19900207	EP 1988-402041	19880804
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
ZA 8905797	A	19910327	ZA 1989-5797	19890728
AU 8939174	A	19900208	AU 1989-39174	19890801
AU 624402	B2	19920611		
DK 8903818	A	19900205	DK 1989-3818	19890803
US 5017580	A	19910521	US 1989-389309	19890803
JP 02256616	A	19901017	JP 1989-202710	19890804
CA 1333154	C	19941122	CA 1989-607650	19890804
PRIORITY APPLN. INFO.:			EP 1988-402041	A 19880804
OTHER SOURCE(S):	MARPAT	113:171886		
GI				



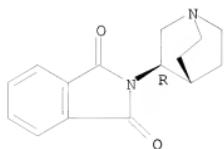
AB The title compds. (I; R = Ph optionally having 1-3 Cl-4 alkoxy and/or 1-2 halo substituents, Q1, Q2; R1, R3 = H, Cl-4 alkyl; R2 = halo, NH2, NHMe, NMe2, Cl-8 alkoxy, Cl-4 alkanoyl; 4,5-R22 = CH:CHCH:CH; R4 = Cl-8 alkyl; R5 = Cl-4 alkyl; n = 1,2) were prepared. Thus, (R)-(-)-3-aminoquinuclidine (preparation given) was stirred 18 h with 4-amino-5-chloro-2-methoxybenzoic acid in pyridine containing DCC to give, after acidification, title compound (R)-(-)-II.HCl which facilitated light avoidance learning and prevented scopolamine impairment of same in mice receiving 10 ng/kg b.d.

IT 123442-07-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction of, in preparation of psychoanaleptic agents)

RN 123442-07-9 CAPLUS  
CN 1H-Isoindole-1,3(2H)-dione, 2-(1-azabicyclo[2.2.2]oct-3-yl)-, (R)- (9CI)  
(CA INDEX NAME)

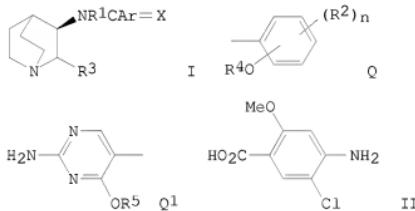
Absolute stereochemistry.



LS ANSWER 8 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1989:614399 CAPLUS  
 DOCUMENT NUMBER: 111:214399  
 ORIGINAL REFERENCE NO.: 111:35560h,35561a  
 TITLE: Preparation of anxiolytic  
 N-[1-azabicyclo[2.2.2]oct-3(R)-yl]benzamides and  
 -thiobenzamides  
 INVENTOR(S): Renaud, Alain; Langlois, Michel; Naylor, Robert John;  
 Naylor, Brenda  
 PATENT ASSIGNEE(S): Delalande S. A., Fr.; A. H. Robins Co., Inc.  
 SOURCE: Eur. Pat. Appl., 31 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 311724	A1	19890419	EP 1987-402321	19871016
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
ZA 8807601	A	19890726	ZA 1988-7601	19881012
DK 8805761	A	19890417	DK 1988-5761	19881014
AU 8823749	A	19890420	AU 1988-23749	19881014
AU 618027	B2	19911212		
JP 01199969	A	19890811	JP 1988-259257	19881014
CA 1322552	C	19930928	CA 1988-580281	19881014
US 5206246	A	19930427	US 1991-735174	19910723
PRIORITY APPLN. INFO.:			EP 1987-402321	A 19871016
			US 1988-257632	B1 19881014
			US 1990-609018	B1 19901031

OTHER SOURCE(S): CASREACT 111:214399; MARPAT 111:214399  
 GI



AB The title compds. [I; X = O, S; R1, R3 = H, alkyl; Ar = (substituted) Ph, e.g., Q; R2 = halo, 4,5-benzo, alkylcarbonyl, NH2, NHMe, NMe2, etc.; R4 = alkyl, Q1; n = 1, 2; R5 = alkyl] and their N-oxides, pharmaceutically acceptable salts, useful as anxiolytics, are prepared either via separating the R enantiomer from a stereoisomeric mixture, or via reacting the appropriate 1-azabicyclo[2.2.2]octan-3(R)-amine with  $\text{AcCO}_2\text{H}$  or its reactive derivative optionally followed by treatment with S, salt formation, etc. Benzoic acid II was condensed with 3-aminoquinuclidine in the presence of 1,1'-carbonyldiimidazole to give, after treatment with fumaric acid and

separation of the racemate (separation procedure not described by author), I

[R1 = R3 = H, Ar = 4-amino-5-chloro-2-methoxyphenyl, X = O,] (III) fumarate (1:1). By a method described by Cragley and Goodwin (1980) using mice, III at 0.1-10 mg/kg i.p. decreased significantly straightenings compared with the control.

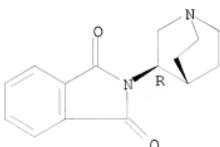
IT 123442-07-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as intermediate for anxiolytics)

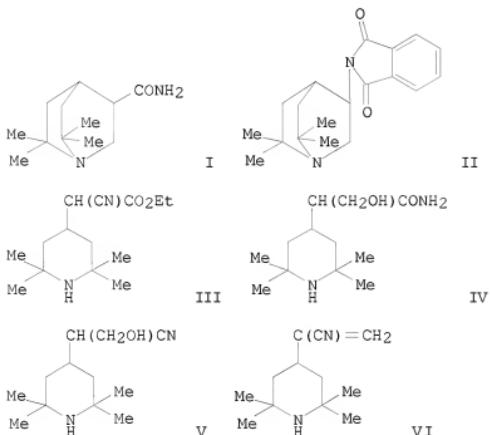
RN 123442-07-9 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(1-azabicyclo[2.2.2]oct-3-yl)-, (R)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1977:16523 CAPLUS  
 DOCUMENT NUMBER: 86:16523  
 ORIGINAL REFERENCE NO.: 86:2689a,2692a  
 TITLE: Synthesis of 2,2,6,6-tetramethyl quinuclidines with  
 functional substituents in the quinuclidine nucleus  
 AUTHOR(S): Levkoeva, E. I.; Yakhontov, L. N.  
 CORPORATE SOURCE: Vses. Nauchno-Issled. Khim.-Farm. Inst. im.  
 Ordzhonikidze, Moscow, USSR  
 SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1976), (7),  
 927-34  
 CODEN: KGSSAQ; ISSN: 0132-6244  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 86:16523  
 GI



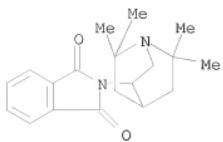
AB Quinuclidines I and II were prepared. Hydrolysis of piperidine acetate III gave 71.5% amide, which was reduced to give 81.4% hydroxyamide IV. The tosylate of IV was prepared in pyridine and treated with  $K_2CO_3$  to give 30% V and 18% VI; VI was successively treated with  $PBr_3$  and cyclized to give 15% I. Several other tetramethylpiperidines were also prepared.

IT 61171-66-2P

RL: SPN (Synthetic preparation); PREP (Preparation (preparation of)

RN 61171-66-2 CAPIUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(6,6,7,7-tetramethyl-1-azabicyclo[2.2.2]oct-3-yl)-, hydrobromide (1:1) (CA INDEX NAME)



● HBr

=> D IBIB ABS HITSTR L6 TOT

ACCESSION NUMBER: 2008:734100 CAPLUS

DOCUMENT NUMBER: 149:79629

TITLE: Preparation of N,N'-diarylpirimidinediamine for use as protein kinase inhibitors

INVENTOR(S): Michellys, Pierre-Yves; Pei, Wei; Marsilje, Thomas H.; Lu, Wenshuo; Chen, Bei; Uno, Tetsuo; Jin, Yunho; Jiang, Tao

PATENT ASSIGNEE(S): IRM LLC, Bermuda  
SOURCE: PCT Int. Appl., 199pp.DOCUMENT TYPE: Patent  
LANGUAGE: EnglishFAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008073687	A2	20080619	WO 2007-US85304	20071120
WO 2008073687	A3	20080731		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
US 20080176881	A1	20080724	US 2007-943436	20071120
PRIORITY APPLN. INFO.:			US 2006-869299P	P 20061208
			US 2007-966449P	P 20070828

OTHER SOURCE(S): MARPAT 149:79629

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [R1 and R2 independently = halo, OR12, (un)substituted alkyl, alkenyl, etc.; or one of R1 or R2 = H; or R1 and R2 together form (un)substituted monocyclic or fused carbocyclic ring, aryl, heteroaryl, etc.; R3 = CN, S02R12, (CR5)2CO2R12, etc.; R4 = H, NO2, halo, (un)substituted alkyl, alkenyl, etc.; R5 = H or alkyl; R6 = substituted aryl or heteroaryl; R12 = H, alkyl, aryl, etc.], and their pharmaceutically acceptable salts, are prepared and disclosed as protein kinase inhibitors. Thus, e.g., II was prepared by amidation of 4-aminopiperidine-1-carboxylic acid tert-Bu ester with 2-chloro-4-isopropoxy-5-nitrobenzoyl chloride (preparation given), followed by coupling with vinylboronic acid di-Bu ester, cyclization, reduction, substitution with (2,5-dichloropyrimidin-4-yl)-[2-(propane-2-sulfonyl)phenyl]amine (preparation given), and deprotection. I were evaluated in BaF3-NPM-ALK cell assays and, in general, demonstrated IC50 values from 1 nM to 10  $\mu$ M.

IT 1032902-05-8P

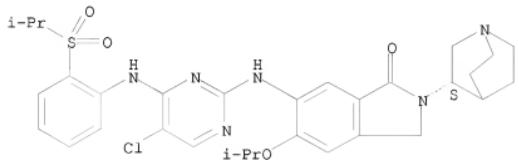
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N,N'- diarylpyrimidinediamine for use as protein kinase  
inhibitors)

RN 1032902-05-8 CAPLUS

CN 1H-Isoindol-1-one, 2-(3S)-1-azabicyclo[2.2.2]oct-3-yl-6-[(5-chloro-4-[(2-  
[(1-methylethyl)sulfonyl]phenyl)amino]-2-pyrimidinyl)amino]-2,3-dihydro-5-  
(1-methylethoxy)- (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2008:224063 CAPLUS  
 DOCUMENT NUMBER: 148:285190  
 TITLE: Tricyclic compound derivatives useful in the treatment  
 of neoplastic diseases, inflammatory disorders and  
 immunomodulatory disorders  
 INVENTOR(S): Gregor, Vlad Edward; Liu, Yahua; Anikin, Alexey;  
 McGee, Danny Peter Claude; Mikel, Charles; McGrath,  
 Douglas Eric; Vavilala, Goverdhan Reddy; Pickens,  
 Jason C.; Kadushkin, Alexander; Thiruvazhi, Mohan  
 Santhanam; Zozulya, Sergey; Vairagoundar, Rajendran;  
 Zhu, Tong; Chucholowski, Alexander; Webb, Thomas R.;  
 Jiang, Luyong; Gantla, VidyaSagar Reddy; Yan, Zheng  
 PATENT ASSIGNEE(S): Cambridge Research Laboratories, Inc., USA  
 SOURCE: PCT Int. Appl., 339pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008021369	A2	20080221	WO 2007-US18002	20070813
WO 2008021369	A3	20080529		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
US 20080171769	A1	20080717	US 2007-891604	20070810
PRIORITY APPLN. INFO.:			US 2006-837652P	P 20060814
OTHER SOURCE(S):	MARPAT	148:285190		
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Provided are compds. of formula I or a stereoisomer, tautomer, salt,  
 hydrate, or prodrug thereof, capable of modulating tyrosine kinases,  
 compns. comprising the compds. and methods of their use. Compds. of  
 formula I wherein each W1 - W6 are independently C and N, with the proviso  
 that then W1 - W6 is N, the corresponding substituent X1 - X6 is absent;  
 each X1 - X3, X5 and X6 are independently H, OH, halo, (un)substituted  
 lower alkyl, (un)substituted lower alkoxy, (un)substituted acylamino,  
 etc.; X4 is H, OH, halo, CF<sub>3</sub>, OCF<sub>3</sub>, (un)substituted alkyl, (un)substituted  
 alkenyl, (un)substituted alkynyl, etc.; Y1 and Y2 are independently  
 (un)substituted (CH<sub>2</sub>)<sub>0-4</sub> alkyl, CO, CS, C=NH, and derivs., SO<sub>2</sub> and CF<sub>2</sub>; R<sub>1</sub>  
 is (un)substituted heterocycl1, heterocyclalkyl, heteroaryl,  
 heteroarylalkyl, etc.; and their stereoisomers, tautomers, salts, hydrated  
 and prodrugs thereof, are claimed. Example compound II was prepared by a  
 multistep procedure (procedure given). All the invention compds. were  
 evaluated for their tyrosine kinase modulatory activity (data given).

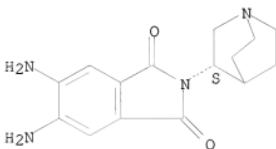
IT 1008453-60-8P 1008453-64-2P  
RL: PRPH (Prophetic); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prophetic intermediate; preparation of tricyclic compound derivs. as tyrosine

kinase modulators useful in treatment and prevention of neoplastic, inflammatory, immune and other tyrosine kinase-related diseases)

RN 1008453-60-8 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5,6-diamino-2-(3S)-1-azabicyclo[2.2.2]oct-3-yl-  
(CA INDEX NAME)

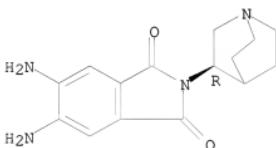
Absolute stereochemistry.



RN 1008453-64-2 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5,6-diamino-2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-  
(CA INDEX NAME)

Absolute stereochemistry.



IT 1008452-35-4 1008452-37-6

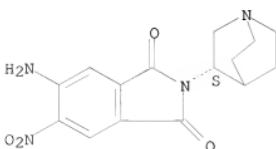
RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; preparation of tricyclic compound derivs. as tyrosine kinase modulators useful in treatment and prevention of neoplastic, inflammatory, immune and other tyrosine kinase-related diseases)

RN 1008452-35-4 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 5-amino-2-(3S)-1-azabicyclo[2.2.2]oct-3-yl-6-nitro-  
(CA INDEX NAME)

Absolute stereochemistry.

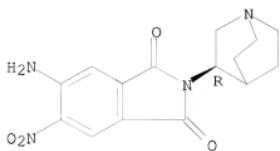


RN 1008452-37-6 CAPLUS

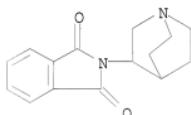
CN 1H-Isoindole-1,3(2H)-dione, 5-amino-2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-

nitro- (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2005:1262924 CAPLUS  
DOCUMENT NUMBER: 144:369594  
TITLE: Synthesis, structural and conformational study of selected N-substituted phthalimides  
AUTHOR(S): Iriepa, Isabel; Villasante, F. Javier; Galvez, Enrique; Herrera, Antonio; Sanchez, Angel; Cano, Felix H.  
CORPORATE SOURCE: Dpto. Quimica Organica, Universidad de Alcala, Alcala de Henares, 28871, Spain  
SOURCE: Central European Journal of Chemistry (2005), 3(4), 683-704  
CODEN: CEJCAZ; ISSN: 1644-3624  
URL: <http://www.ingentaconnect.com/content/cesj/cejc/2005/00000003/00000004>  
PUBLISHER: Central European Science Journals  
DOCUMENT TYPE: Journal; (online computer file)  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 144:369594  
AB This paper synthesizes N-substituted phthalimides derived from nitrogen heterocycles as potential 5-HT4 ligands by using the Mitsunobu reaction. Conformational studies of some of the new compds. have been conducted using 1H and 13C-NMR spectroscopy. Proton and carbon resonances were achieved through the application of one-dimensional selective NOE, two-dimensional NMR techniques-homonuclear COSY-45, NOESY and heteronuclear 1H-13C HMQC correlated spectroscopy- and double resonance expts. The crystal structure of compound 1 was determined by X-ray diffraction.  
IT 882430-91-3P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis, crystal structure, and conformation of N-substituted phthalimides)  
RN 882430-91-3 CAPLUS  
CN 1H-Isoindole-1,3(2H)-dione, 2-(1-azabicyclo[2.2.2]oct-3-yl)- (CA INDEX NAME)



REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2005:1154550 CAPLUS

DOCUMENT NUMBER: 143:422508

TITLE:

Preparation of

2-(1-azabicyclo[2.2.2]oct-3-yl)-2,3-dihydroisoindol-1-one and 5-(1-azabicyclo[2.2.2]oct-3-yl)-5,6-dihydro-furo[2,3-c]pyrrol-4-one derivatives for therapeutic use as ligands for the  $\alpha 7$  nicotinic acetylcholine receptor ( $\alpha 7$ nAChR)

INVENTOR(S): Chapdelaine, Marc; Herzog, Keith J.

PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Chapdelaine, Marc; Herzog, Keith J.

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2

Patent

LANGUAGE: English

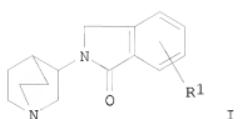
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

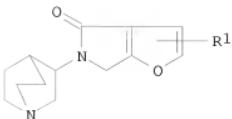
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005100351	A1	20051027	WO 2005-SE500	20050406
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2005233492	A1	20051027	AU 2005-233492	20050406
CA 2563010	A1	20051027	CA 2005-2563010	20050406
EP 1737854	A1	20070103	EP 2005-722314	20050406
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU				
CN 1968951	A	20070523	CN 2005-80019493	20050406
BR 2005009777	A	20071023	BR 2005-9777	20050406
JP 2007532637	T	20071115	JP 2007-508300	20050406
IN 2006DN05559	A	20070831	IN 2006-DN5559	20060925
MX 2006011725	A	20061211	MX 2006-11725	20061010
US 20070213342	A1	20070913	US 2006-599839	20061011
KR 2007020445	A	20070221	KR 2006-721260	20061013
NO 2006005199	A	20061113	NO 2006-5199	20061113
PRIORITY APPLN. INFO.:		SE 2004-970	A	20040414
		WO 2005-SE500	W	20050406

OTHER SOURCE(S): CASREACT 143:422508, MARPAT 143:422508

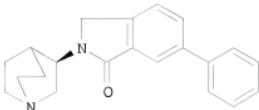
GI



I



III



III

AB The title quinuclidine derivs., such as I and II [R1 = H, halogen, aryl, heteroaryl, heterocycl], were prepared for use in pharmaceutical compns. as  $\alpha 7$ nAChR ligands for treatment or prophylaxis of diseases or conditions in which activation of the  $\alpha 7$ nAChR is beneficial. These quinuclidines are claimed for use in the treatment or prophylaxis of neurol. disorders, psychotic disorders or intellectual impairment disorders selected from Alzheimer's disease, learning deficit, cognition deficit, attention deficit, memory loss or attention deficit hyperactivity disorder, anxiety, schizophrenia, or mania, manic depression, Parkinson's disease, Huntington's disease, Tourette's syndrome, neurodegenerative disorders in which there is loss of cholinergic synapses, jet lag, nicotine addiction, craving, pain, or ulcerative colitis. Thus, 2-[(R)-1-azabicyclo[2.2.2]oct-3-yl]-6-phenyl-2,3-dihydroisoindol-1-one (III) was prepared via an aromatic coupling reaction with 34% yield of 2-[(R)-1-azabicyclo[2.2.2]oct-3-yl]-6-bromo-2,3-dihydroisoindol-1-one with PhB(OH)2 using PdCl2(PPh3)2 and Cs2CO3 in DME/H2O/EtOH (1:1:1) and heating to 150° for 10 min in a Smith microwave. The prepared quinuclidine derivs. were assayed for  $\alpha 7$ nAChR binding affinity and for P-glycoprotein mediated efflux.

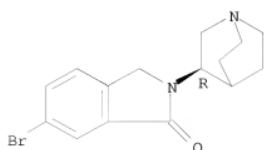
IT 868235-52-3P, 2-[(R)-1-Azabicyclo[2.2.2]oct-3-yl]-6-bromo-2,3-dihydroisoindol-1-one 868235-55-6P 868235-59-0P  
868235-63-6P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of 2-quinuclidinyl-2,3-dihydroisoindol-1-ones and 5-quinuclidinyl-5,6-dihydro-furo[2,3-c]pyrrol-4-one derivs. for therapeutic use as ligands for  $\alpha 7$  nicotinic acetylcholine receptor)

RN 868235-52-3 CAPLUS

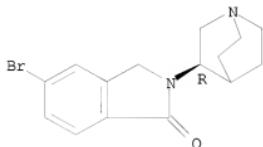
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-bromo-2,3-dihydro-(CA INDEX NAME)

Absolute stereochemistry.



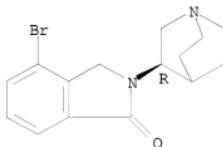
RN 868235-55-6 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-5-bromo-2,3-dihydro-  
(CA INDEX NAME)

Absolute stereochemistry.



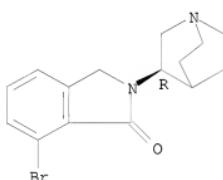
RN 868235-59-0 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-4-bromo-2,3-dihydro-  
(CA INDEX NAME)

Absolute stereochemistry.



RN 868235-63-6 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-7-bromo-2,3-dihydro-  
(CA INDEX NAME)

Absolute stereochemistry.



IT 868235-47-6P, 2-[(R)-1-Azabicyclo[2.2.2]oct-3-yl]-6-phenyl-2,3-dihydroisoindol-1-one 868235-48-7P 868235-50-1P  
868235-51-2P 868235-53-4P 868235-54-5P  
868235-56-7P 868235-57-8P 868235-58-9P  
868235-60-3P 868235-61-4P 868235-62-5P  
868235-64-7P 868235-65-8P 868235-66-9P  
868235-67-0P 868235-68-1P 868235-72-7P  
868235-73-8P 868235-74-9P 868235-75-0P  
868235-76-1P 868235-77-2P 868235-78-3P  
868235-79-4P 868235-80-7P 868235-81-8P  
868235-82-9P 868235-83-0P 868235-84-1P

868235-85-2P 868235-86-3P 868235-87-4P  
868235-88-5P 868235-89-6P 868235-90-9P  
868235-91-0P 868235-92-1P 868235-93-2P  
868235-94-3P 868235-95-4P 868235-96-5P  
868235-97-6P 868235-98-7P 868235-99-8P  
868236-00-4P 868236-02-6P 868236-04-8P  
868236-06-0P 868236-07-1P 868236-08-2P  
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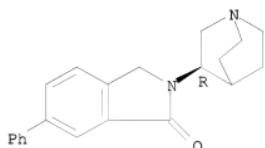
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 2-quinuclidinyl-2,3-dihydroisoindol-1-ones and 5-quinuclidinyl-5,6-dihydro-furo[2,3-c]pyrrol-4-one derivs. for therapeutic use as ligands for  $\alpha_7$  nicotinic acetylcholine receptor)

RN 868235-47-6 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-phenyl- (CA INDEX NAME)

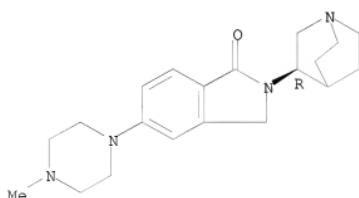
Absolute stereochemistry.



RN 868235-48-7 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-5-(4-methyl-1-piperazinyl)- (CA INDEX NAME)

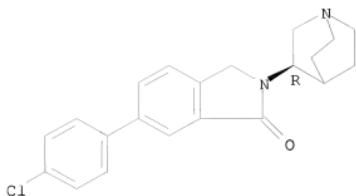
Absolute stereochemistry.



RN 868235-50-1 CAPLUS

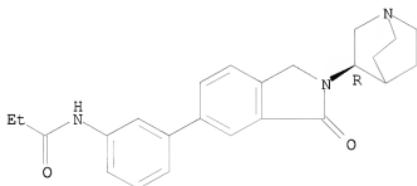
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-(4-chlorophenyl)-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



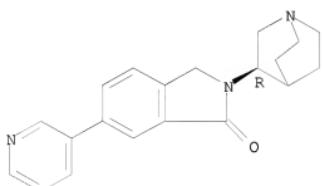
RN 868235-51-2 CAPLUS  
 CN Propanamide, N-[3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl]-2,3-dihydro-3-oxo-1H-isoindol-5-yl]phenyl- (CA INDEX NAME)

Absolute stereochemistry.



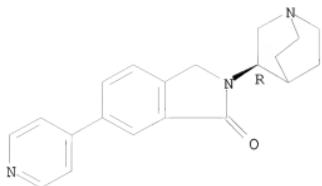
RN 868235-53-4 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(3-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



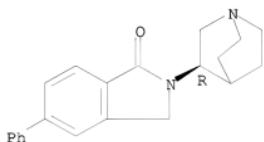
RN 868235-54-5 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(4-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



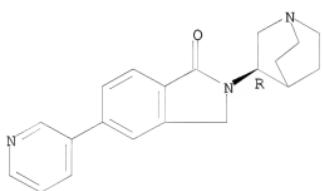
RN 868235-56-7 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-5-phenyl-  
(CA INDEX NAME)

Absolute stereochemistry.



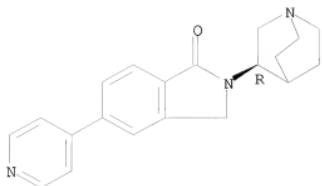
RN 868235-57-8 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-5-(3-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



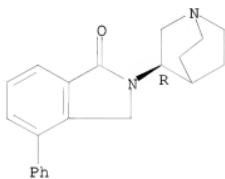
RN 868235-58-9 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-5-(4-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



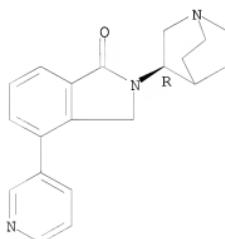
RN 868235-60-3 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-4-phenyl-  
 (CA INDEX NAME)

Absolute stereochemistry.



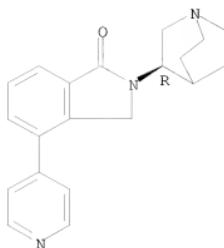
RN 868235-61-4 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-4-(3-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



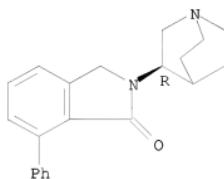
RN 868235-62-5 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-4-(4-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



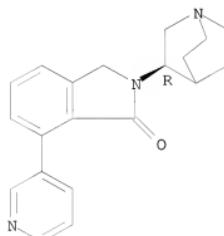
RN 868235-64-7 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-7-phenyl-  
(CA INDEX NAME)

Absolute stereochemistry.



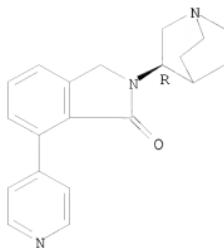
RN 868235-65-8 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-7-(3-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



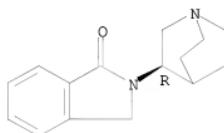
RN 868235-66-9 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-7-(4-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



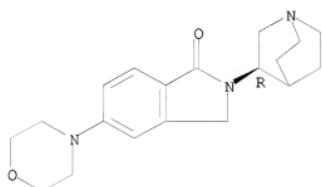
RN 868235-67-0 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



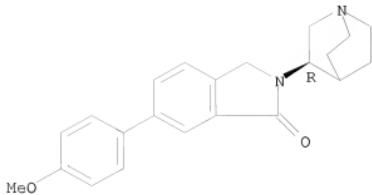
RN 868235-68-1 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-5-(4-morpholinyl)- (CA INDEX NAME)

Absolute stereochemistry.



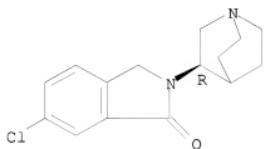
RN 868235-72-7 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(4-methoxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



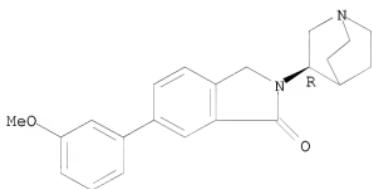
RN 868235-73-8 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-chloro-2,3-dihydro-  
(CA INDEX NAME)

Absolute stereochemistry.



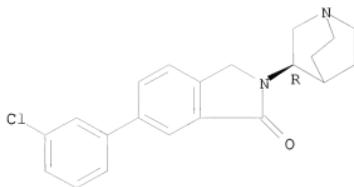
RN 868235-74-9 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(3-  
methoxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



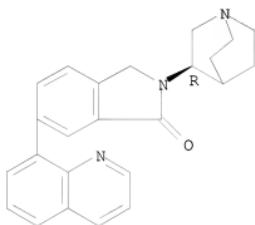
RN 868235-75-0 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-(3-chlorophenyl)-  
2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



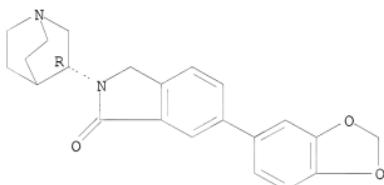
RN 868235-76-1 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(8-quinolinyl)- (CA INDEX NAME)

Absolute stereochemistry.



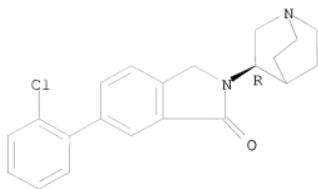
RN 868235-77-2 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-(1,3-benzodioxol-5-yl)-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



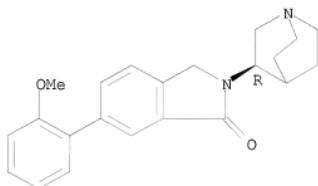
RN 868235-78-3 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-(2-chlorophenyl)-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



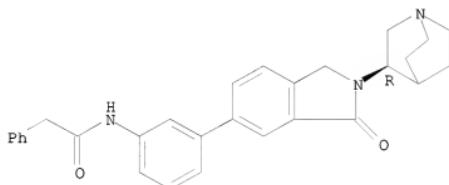
RN 868235-79-4 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(2-methoxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



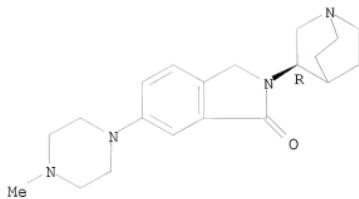
RN 868235-80-7 CAPLUS  
CN Benzeneacetamide, N-[3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isoindol-5-yl]phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



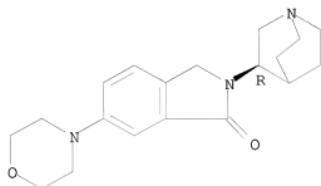
RN 868235-81-8 CAPLUS  
CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(4-methyl-1-piperazinyl)- (CA INDEX NAME)

Absolute stereochemistry.



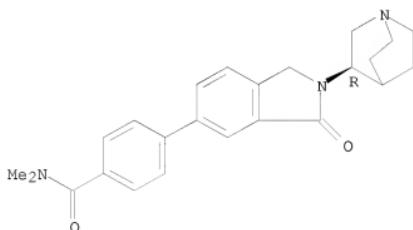
RN 868235-82-9 CAPLUS  
 CN 1H-Isindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(4-methylpiperidin-1-yl)- (CA INDEX NAME)

Absolute stereochemistry.



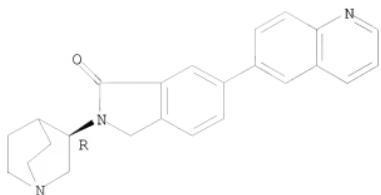
RN 868235-83-0 CAPLUS  
 CN Benzanide, 4-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isoindol-5-yl]-N,N-dimethyl- (CA INDEX NAME)

Absolute stereochemistry.



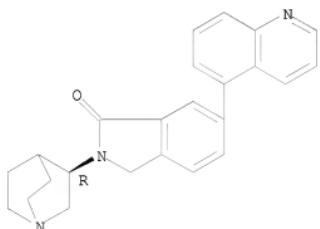
RN 868235-84-1 CAPLUS  
 CN 1H-Isindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(6-quinolinyl)- (CA INDEX NAME)

Absolute stereochemistry.



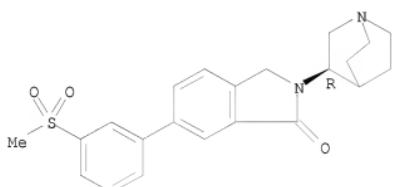
RN 868235-85-2 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(5-quinolinyl)- (CA INDEX NAME)

Absolute stereochemistry.



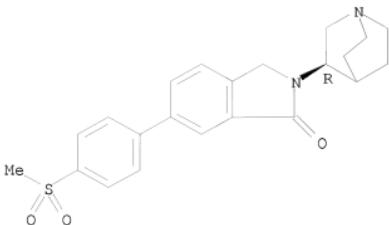
RN 868235-86-3 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[3-(methylsulfonyl)phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



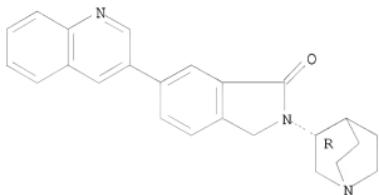
RN 868235-87-4 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[4-(methylsulfonyl)phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



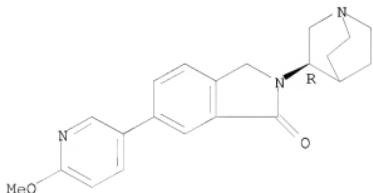
RN 868235-88-5 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(3-quinolinyl)- (CA INDEX NAME)

Absolute stereochemistry.



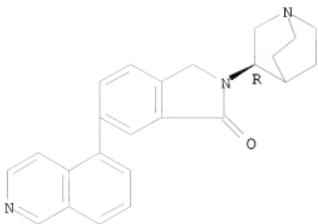
RN 868235-89-6 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(6-methoxy-3-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



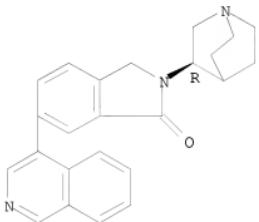
RN 868235-90-9 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(5-isoquinoliny)- (CA INDEX NAME)

Absolute stereochemistry.



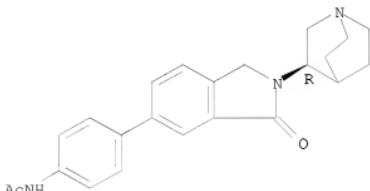
RN 868235-91-0 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(4-isoquinolinyl)- (CA INDEX NAME)

Absolute stereochemistry.



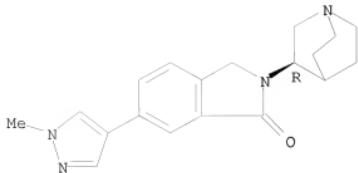
RN 868235-92-1 CAPLUS  
 CN Acetamide, N-[4-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isoindol-5-yl]phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



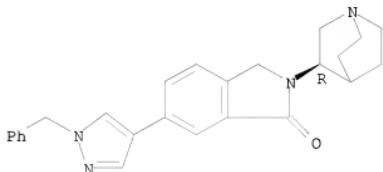
RN 868235-93-2 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(1-methyl-1H-pyrazol-4-yl)- (CA INDEX NAME)

Absolute stereochemistry.



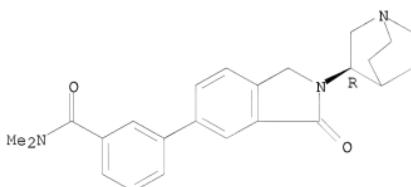
RN 868235-94-3 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(1-phenylmethyl)-1H-pyrazol-4-yl- (CA INDEX NAME)

Absolute stereochemistry.



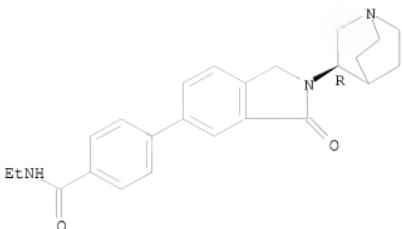
RN 868235-95-4 CAPLUS  
 CN Benzamide, 3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isoindol-5-yl]-N,N-dimethyl- (CA INDEX NAME)

Absolute stereochemistry.



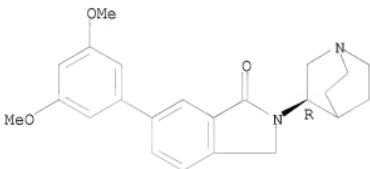
RN 868235-96-5 CAPLUS  
 CN Benzamide, 4-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isoindol-5-yl]-N-ethyl- (CA INDEX NAME)

Absolute stereochemistry.



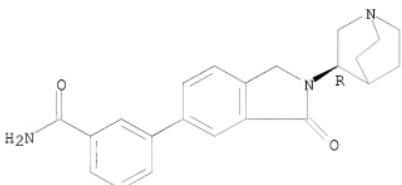
RN 868235-97-6 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-(3,5-dimethoxyphenyl)-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



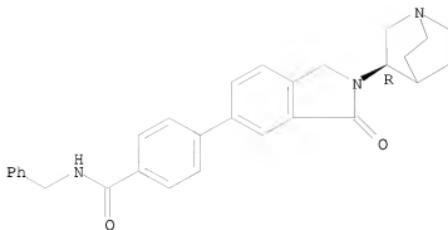
RN 868235-98-7 CAPLUS  
 CN Benzamide, 3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isoindol-5-yl]- (CA INDEX NAME)

Absolute stereochemistry.



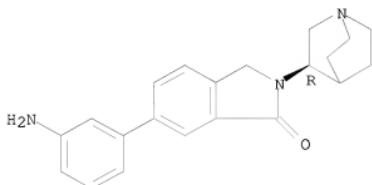
RN 868235-99-8 CAPLUS  
 CN Benzamide, 4-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isoindol-5-yl]-N-(phenylmethyl)- (CA INDEX NAME)

Absolute stereochemistry.



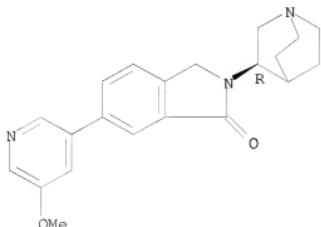
RN 868236-00-4 CAPLUS  
 CN 1H-Isoindol-1-one, 6-(3-aminophenyl)-2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



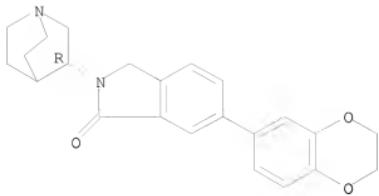
RN 868236-02-6 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-(5-methoxy-3-pyridinyl)- (CA INDEX NAME)

Absolute stereochemistry.



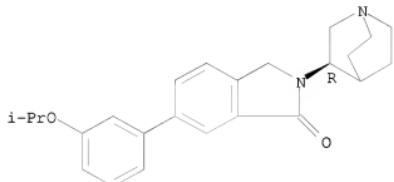
RN 868236-04-8 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-(2,3-dihydro-1,4-benzodioxin-6-yl)-2,3-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



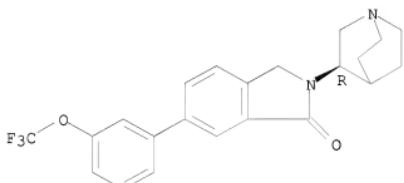
RN 868236-06-0 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[3-(1-methylethoxy)phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



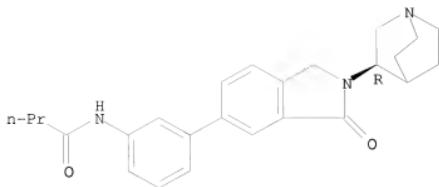
RN 868236-07-1 CAPLUS  
 CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[3-(trifluoromethoxy)phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 868236-08-2 CAPLUS  
 CN Butanamide, N-[3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-3-oxo-1H-isindol-5-yl]phenyl]- (CA INDEX NAME)

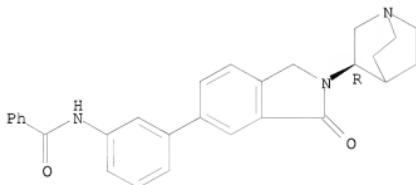
Absolute stereochemistry.



RN 868236-09-3 CAPLUS

CN Benzanide, N-[3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl]-2,3-dihydro-3-oxo-1H-isoindol-5-yl]phenyl]- (CA INDEX NAME)

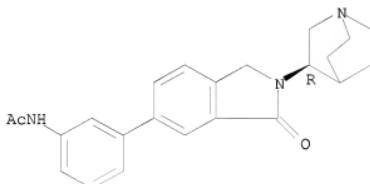
Absolute stereochemistry.



RN 868236-10-6 CAPLUS

CN Acetanide, N-[3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl]-2,3-dihydro-3-oxo-1H-isoindol-5-yl]phenyl]- (CA INDEX NAME)

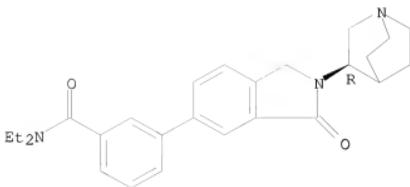
Absolute stereochemistry.



RN 868236-11-7 CAPLUS

CN Benzanide, 3-[2-(3R)-1-azabicyclo[2.2.2]oct-3-yl]-2,3-dihydro-3-oxo-1H-isoindol-5-yl]-N,N-diethyl- (CA INDEX NAME)

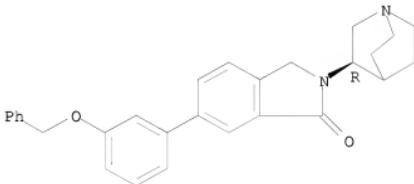
Absolute stereochemistry.



RN 868236-12-8 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[3-(phenylmethoxy)phenyl]- (CA INDEX NAME)

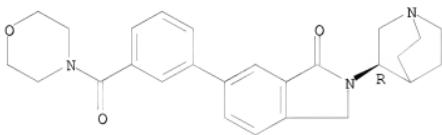
## Absolute stereochemistry.



RN 868236-13-9 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[3-(4-morpholinyl)carbonyl]phenyl]- (CA INDEX NAME)

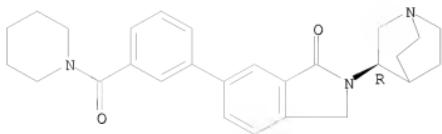
### Absolute stereochemistry.



RN 868236-14-0 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[3-(1-piperidinylcarbonyl)phenyl]- (CA INDEX NAME)

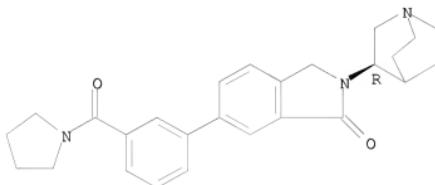
### Absolute stereochemistry.



RN 868236-15-1 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[3-(1-pyrrolidinylcarbonyl)phenyl]- (CA INDEX NAME)

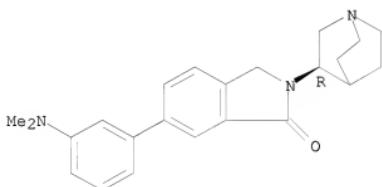
Absolute stereochemistry.



RN 868236-16-2 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-6-[3-(dimethylamino)phenyl]-2,3-dihydro- (CA INDEX NAME)

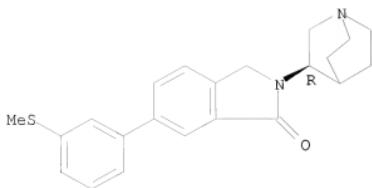
Absolute stereochemistry.



RN 868236-17-3 CAPLUS

CN 1H-Isoindol-1-one, 2-(3R)-1-azabicyclo[2.2.2]oct-3-yl-2,3-dihydro-6-[3-(methylthio)phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

9

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2002:89070 CAPLUS

DOCUMENT NUMBER: 136:395318

TITLE: Novel Potent 5-HT3 Receptor Ligands Based on the Pyrrolidone Structure: Synthesis, Biological Evaluation, and Computational Rationalization of the Ligand-Receptor Interaction Modalities

AUTHOR(S): Cappelli, Andrea; Anzini, Maurizio; Vomero, Salvatore; Mennuni, Laura; Makovec, Francesco; Doucet, Edith; Hamon, Michel; Menziani, M. Cristina; De Benedetti, Pier G.; Giorgi, Gianluca; Ghelardini, Carla; Collina, Simona

CORPORATE SOURCE: Dipartimento Farmaco Chimico Tecnologico, Universita di Siena, Siena, 53100, Italy

SOURCE: Bioorganic &amp; Medicinal Chemistry (2002), 10(3), 779-801

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:395318

AB Novel conformationally constrained derivs. of classical 5-HT3 receptor antagonists were designed and synthesized with the aim of probing the central 5-HT3 receptor recognition site in a systematic way. The newly-synthesized compds. were tested for their potential ability to inhibit [<sup>3</sup>H]gransetron specific binding to 5-HT3 receptor in rat cortical membranes. These studies revealed subnanomolar affinity in some of the compds. under study. The most potent ligand in this series was the quinuclidine derivative, which showed an affinity comparable with that of the reference ligand gransetron. The potential 5-HT3 agonist/antagonist activity of some selected compds. was assessed *in vitro* on the 5-HT3 receptor-dependent [<sup>14</sup>C]guanidinium uptake in NG 108-15 cells. Both of the tropane derivs. tested in this functional assay showed antagonist properties, while the quinuclidine derivs. studied showed a full range of intrinsic efficacies. Therefore, the functional behavior of these 5-HT3 receptor ligands appears to be affected by the structural features of both the azabicyclo moiety and the heteroarom. portion. In agreement with the data obtained on NG 108-15 cells, investigations on the 5-HT3 receptor-dependent Bezold-Jarisch reflex in urethane-anesthetized rats confirmed the 5-HT3 receptor antagonist properties of several of the compds. Finally, several prevented scopolamine-induced amnesia in the mouse passive avoidance test suggestive of a potential usefulness in cognitive disorders for these compds. Qual. and quant. structure-affinity relation studies were carried out by theor. descriptors derived on a single structure and ad-hoc defined size and shape descriptors (indirect approach). The results showed to be useful in capturing information relevant to ligand-receptor interaction. Addnl. information derived by the anal. of the energy minimized 3-D structures of the ligand-receptor complexes (direct approach) suggested interesting mechanistic and methodol. considerations on the binding mode multiplicity at the 5-HT3 receptors and on the degree of tolerance allowed in the alignment of mols. for the indirect approach, resp.

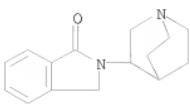
IT 431079-01-5P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(novel potent 5-HT3 receptor ligands based on pyrrolidone structure in relation to synthesis and biol. evaluation and computational rationalization of ligand-receptor interaction modalities)

RN 431079-01-5 CAPLUS

CN 1H-Isoindol-1-one, 2-(1-azabicyclo[2.2.2]oct-3-yl)-2,3-dihydro-, hydrochloride (1:1) (CA INDEX NAME)



● HCl

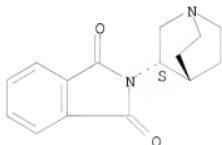
REFERENCE COUNT:

54

THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

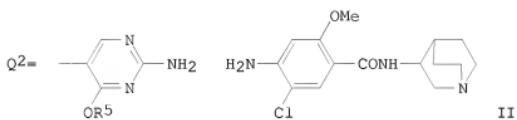
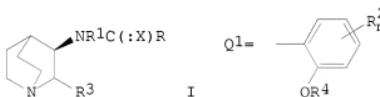
L6 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1992:511443 CAPLUS  
DOCUMENT NUMBER: 117:111443  
ORIGINAL REFERENCE NO.: 117:19443a,19446a  
TITLE: Synthesis of (R)- and (S)-3-aminoquinuclidine from  
3-quinuclidinone and (S)- and (R)-1-phenethylamine  
AUTHOR(S): Langlois, Michel; Meyer, Christine; Soulier, Jean  
Louis  
CORPORATE SOURCE: CERCOA, CNRS, Thiais, F-94320, Fr.  
SOURCE: Synthetic Communications (1992), 22(13), 1895-911  
CODEN: SYNCAC; ISSN: 0039-7911  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 117:111443  
AB The synthesis of (R)- and (S)-3-aminoquinuclidine, an important building  
block for the synthesis of chiral 5-HT3 serotonin receptor antagonists, is  
described. The key reaction is the reduction by NaBH4 of the imine prepared  
from the 3-quinuclidinone and chiral (S) or (R)-1-phenethylamine.  
IT 142999-65-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and deprotection of)  
RN 142999-65-3 CAPLUS  
CN 1H-Isoindole-1,3(2H)-dione, 2-(1-azabicyclo[2.2.2]oct-3-yl)-, (S)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1990:571886 CAPLUS  
 DOCUMENT NUMBER: 113:171886  
 ORIGINAL REFERENCE NO.: 113:29153a,29156a  
 TITLE: Preparation of N-(3-quinuclidinyl)benzamides and  
 analogs as psychoanaleptic agents  
 INVENTOR(S): Renaud, Alain; Langlois, Michel; Naylor, Robert John;  
 Naylor, Brenda  
 PATENT ASSIGNEE(S): Delalande S. A., Fr.; A. H. Robins Co., Inc.  
 SOURCE: Eur. Pat. Appl., 29 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 353371	A1	19900207	EP 1988-402041	19880804
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
ZA 8905797	A	19910327	ZA 1989-5797	19890728
AU 8939174	A	19900208	AU 1989-39174	19890801
AU 624402	B2	19920611		
DK 8903818	A	19900205	DK 1989-3818	19890803
US 5017580	A	19910521	US 1989-389309	19890803
JP 02256616	A	19901017	JP 1989-202710	19890804
CA 1333154	C	19941122	CA 1989-607650	19890804
PRIORITY APPLN. INFO.:			EP 1988-402041	A 19880804
OTHER SOURCE(S):	MARPAT	113:171886		
GI				



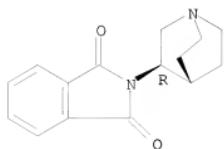
AB The title compds. (I; R = Ph optionally having 1-3 Cl-4 alkoxy and/or 1-2 halo substituents, Q1, Q2; R1, R3 = H, Cl-4 alkyl; R2 = halo, NH2, NHMe, NMe2, Cl-8 alkoxy, Cl-4 alkanoyl; 4,5-R22 = CH:CHCH:CH; R4 = Cl-8 alkyl; R5 = Cl-4 alkyl; n = 1,2) were prepared. Thus, (R)-(-)-3-aminoquinuclidine (preparation given) was stirred 18 h with 4-amino-5-chloro-2-methoxybenzoic acid in pyridine containing DCC to give, after acidification, title compound (R)-(-)-II.HCl which facilitated light avoidance learning and prevented scopolamine impairment of same in mice receiving 10 ng/kg b.d.

IT 123442-07-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction of, in preparation of psychoanaleptic agents)

RN 123442-07-9 CAPLUS  
CN 1H-Isoindole-1,3(2H)-dione, 2-(1-azabicyclo[2.2.2]oct-3-yl)-, (R)- (9CI)  
(CA INDEX NAME)

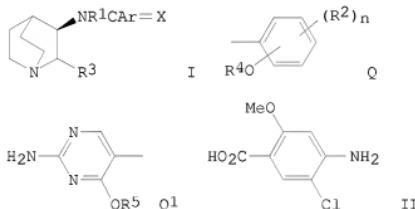
Absolute stereochemistry.



L6 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1989:614399 CAPLUS  
 DOCUMENT NUMBER: 111:214399  
 ORIGINAL REFERENCE NO.: 111:35560h,35561a  
 TITLE: Preparation of anxiolytic  
 N-[1-azabicyclo[2.2.2]oct-3(R)-yl]benzamides and  
 -thiobenzamides  
 INVENTOR(S): Renaud, Alain; Langlois, Michel; Naylor, Robert John;  
 Naylor, Brenda  
 PATENT ASSIGNEE(S): Delalande S. A., Fr.; A. H. Robins Co., Inc.  
 SOURCE: Eur. Pat. Appl., 31 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 311724	A1	19890419	EP 1987-402321	19871016
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
ZA 8807601	A	19890726	ZA 1988-7601	19881012
DK 8805761	A	19890417	DK 1988-5761	19881014
AU 8823749	A	19890420	AU 1988-23749	19881014
AU 618027	B2	19911212		
JP 01199969	A	19890811	JP 1988-259257	19881014
CA 1322552	C	19930928	CA 1988-580281	19881014
US 5206246	A	19930427	US 1991-735174	19910723
PRIORITY APPLN. INFO.:			EP 1987-402321	A 19871016
			US 1988-257632	B1 19881014
			US 1990-609018	B1 19901031

OTHER SOURCE(S): CASREACT 111:214399; MARPAT 111:214399  
 GI



AB The title compds. [I; X = O, S; R1, R3 = H, alkyl; Ar = (substituted) Ph, e.g., Q; R2 = halo, 4,5-benzo, alkylcarbonyl, NH2, NHMe, NMe2, etc.; R4 = alkyl, Q1; n = 1, 2; R5 = alkyl] and their N-oxides, pharmaceutically acceptable salts, useful as anxiolytics, are prepared either via separating the R

enantiomer from a stereoisomeric mixture, or via reacting the appropriate 1-azabicyclo[2.2.2]octan-3(R)-amine with ArCO2H or its reactive derivative optionally followed by treatment with S, salt formation, etc. Benzoic acid II was condensed with 3-aminoquinuclidine in the presence of 1,1'-carbonyldiimidazole to give, after treatment with fumaric acid and

separation of the racemate (separation procedure not described by author), I

[R1 = R3 = H, Ar = 4-amino-5-chloro-2-methoxyphenyl, X = O,] (III) fumarate (1:1). By a method described by Cragley and Goodwin (1980) using mice, III at 0.1-10 mg/kg i.p. decreased significantly straightenings compared with the control.

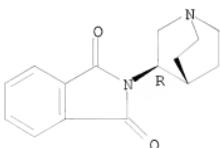
IT 123442-07-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as intermediate for anxiolytics)

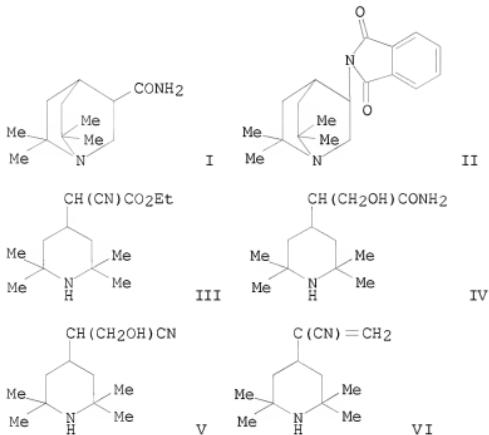
RN 123442-07-9 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(1-azabicyclo[2.2.2]oct-3-yl)-, (R)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



ACCESSION NUMBER: 1977:16523 CAPLUS  
 DOCUMENT NUMBER: 86:16523  
 ORIGINAL REFERENCE NO.: 86:2689a,2692a  
 TITLE: Synthesis of 2,2,6,6-tetramethyl quinuclidines with  
 functional substituents in the quinuclidine nucleus  
 AUTHOR(S): Levkoeva, E. I.; Yakhontov, L. N.  
 CORPORATE SOURCE: Vses. Nauchno-Issled. Khim.-Farm. Inst. im.  
 Ordzhonikidze, Moscow, USSR  
 SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1976), (7),  
 927-34  
 CODEN: KGSSAQ; ISSN: 0132-6244  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 86:16523  
 GI



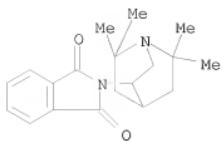
AB Quinuclidines I and II were prepared. Hydrolysis of piperidine acetate III gave 71.5% amide, which was reduced to give 81.4% hydroxyamide IV. The tosylate of IV was prepared in pyridine and treated with  $K_2CO_3$  to give 30% V and 18% VI; VI was successively treated with  $PbBr_3$  and cyclized to give 15% I. Several other tetramethylpiperidines were also prepared.

IT 61171-66-2P

RL: SPN (Synthetic preparation); PREP (Preparation (preparation of)

RN 61171-66-2 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(6,6,7,7-tetramethyl-1-azabicyclo[2.2.2]oct-3-yl)-, hydrobromide (1:1) (CA INDEX NAME)



● HBr

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=> LOG Y
COST IN U.S. DOLLARS                               SINCE FILE      TOTAL
                                                    ENTRY        SESSION
FULL ESTIMATED COST                           103.02       475.00

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
                                                    ENTRY        SESSION
CA SUBSCRIBER PRICE                            -14.76       -14.76

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STN INTERNATIONAL LOGOFF AT 11:39:24 ON 04 MAR 2009